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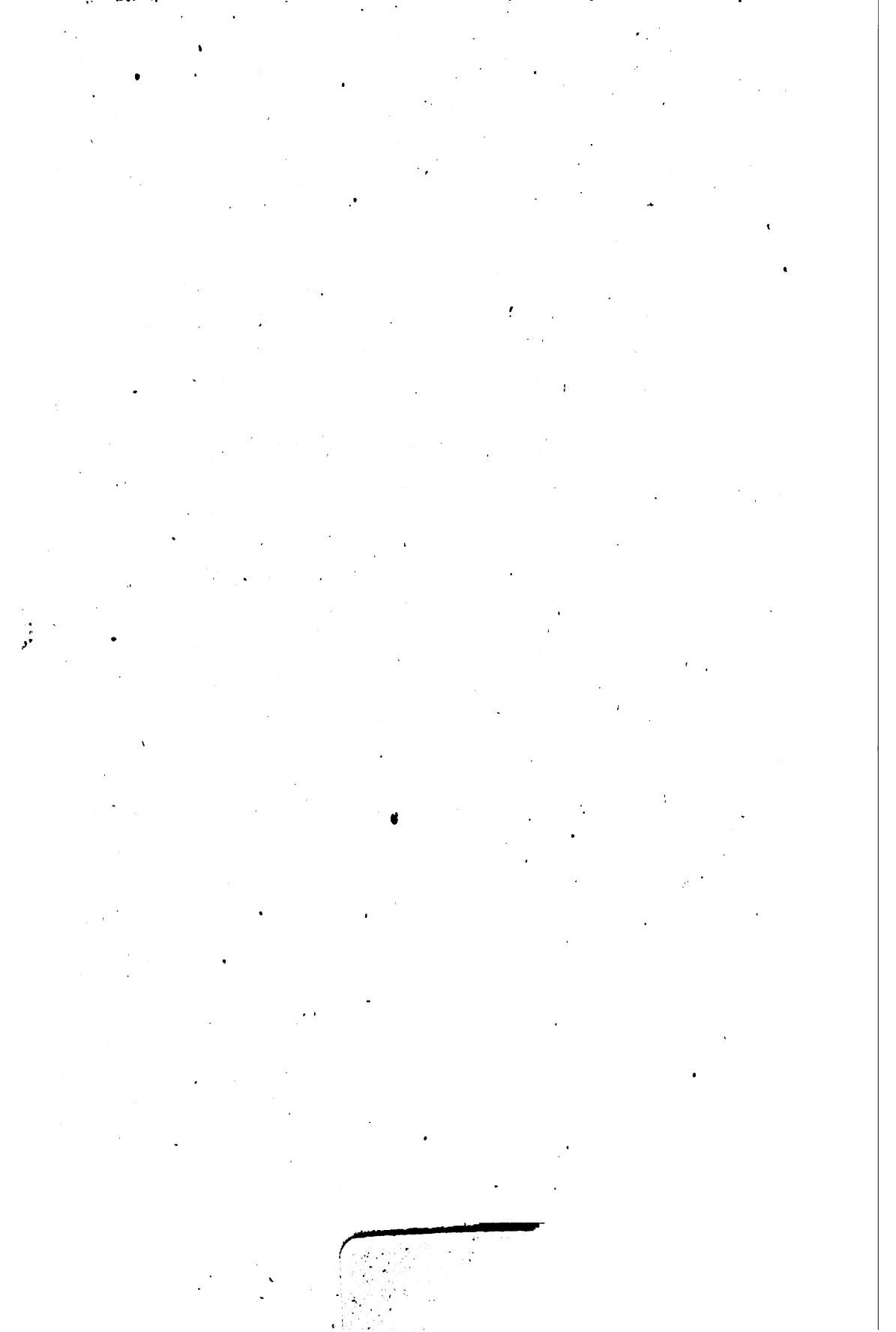
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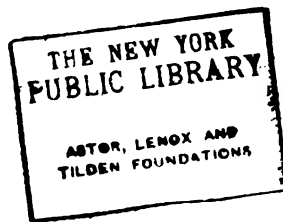




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BRIGADIER-GENERAL SIR HENRY WILMOT, BART.,
V.C., C.B.

COMMANDING NORTH MIDLANDS BRIGADE OF VOLUNTEER INFANTRY.

THE ILLUSTRATED
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MAGAZINE.

*A Monthly Journal devoted to all subjects connected with
Her Majesty's Land and Sea Forces.*

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SCRIBNER'S MAGAZINE.

September 1889.

Containing an Article by W. W. KIMBALL (United States Inspector of Ordnance)

ON THE

Small Arms of European Armies.

Giving a clear idea, with the aid of Illustrations, of the ingenious Magazine Rifles which have been adopted by the great Continental Armies.

Lieutenant Kimball describes very fully the "Manliches," "Remington," "Hotchkiss," "Lebel," "Lee," "Mauser," and other Rifles.

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W. W. Kimball, U.S.N.
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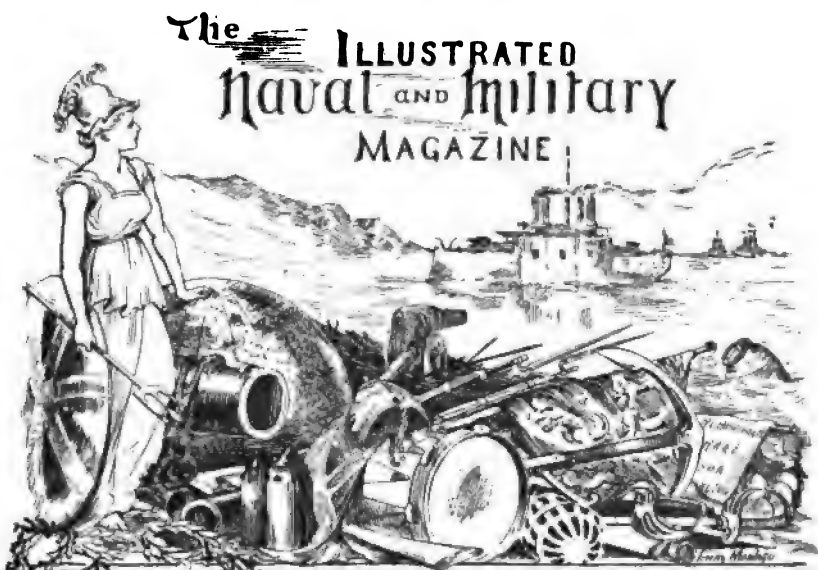
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Justin McCarthy.

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No. 9.

SEPTEMBER 1st, 1889.

Vol. III.

Brigadier-General Sir Henry Wilmot,

BART., V.C., C.B.,

COMMANDING NORTH MIDLANDS BRIGADE OF VOLUNTEER
INFANTRY.



BRIGADIER-GENERAL SIR HENRY WILMOT, Bart, V.C., C.B., was formerly in the Rifle Brigade, in which he attained the rank of Major. He served with the 2nd Battalion during the Indian Mutiny till November 1857, when he was transferred to the staff of Sir Hope Grant. At the siege of Lucknow he gained the V.C., and was awarded a brevet-majority for gallantry in the field. On the 11th March 1858, Captain Wilmot's company was engaged near the Iron Bridge, when he found himself separated from it with only four men, one of whom fell shot through both legs; the two men lifted him up, and although Private Hawkes was severely wounded, he carried him a considerable distance, exposed to the fire of the enemy, Captain Wilmot firing with the men's rifles and covering

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the retreat of the party. Sir Henry Wilmot likewise served in China during the war of 1860–61. He is a Justice of the Peace for Derbyshire, and sat as M.P. for the same county from 1869–85. He is Honorary Colonel of the 1st Volunteer Battalion of the Derbyshire Regiment, and in 1888 was appointed to the command of the North Midland Brigade of Volunteer Infantry.

The following battalions are comprised in this brigade, whose head-quarters are at Derby :—

1st Volunteer Battalion Derbyshire Regiment.

2nd " " " "

1st Notts Rifle Volunteer Corps.

4th Volunteer Battalion Derbyshire Regiment.

The following portraits of Brigadier-Generals of Volunteer Infantry Brigades have already appeared in this magazine :—

1. Lieut.-General Lord Abinger, C.B., commanding West London Brigade, in April.

2. Brigadier-General Right Hon. J. H. A. Macdonald, C.B., commanding Forth Brigade, in May.

3. Brigadier-General Right Hon. Lord Wantage, V.C., K.C.B., commanding Home Counties Brigade, in June.

4. Brigadier-General the Earl of Sandwich, commanding the South Midlands Brigade of Volunteer Infantry, in July.

5. Brigadier-General Sir William H. Humphery, Bart., C.B., commanding Portsmouth Brigade of Volunteer Infantry, in August.

Naval Warfare:

ITS PRINCIPLES AND PRACTICE HISTORICALLY TREATED.

By REAR-ADMIRAL P. H. COLOMB.

CHAPTER III.

THE STRUGGLE FOR THE COMMAND OF THE SEA—(continued).

The power which is weakest finds it impossible to defend commerce and struggle for the command of the sea at the same time.—On the opening of the second war the Dutch give up the defence of commerce, and prohibit it.—The attack on both sides is concentrated and direct upon the naval force.—When command of the sea becomes at all secure, attacks on shipping in harbours follow, as at the Vlie, and in the Thames and Medway; and troops for landing are embarked.



IN the first Dutch war, the leading events of which were sketched in my last chapter, we had an excellent example of the struggle for the command of the sea, carried on between two maritime powers of not very unequal naval force, but one of which, Holland, appeared to be much weaker on the sea because of her great dependence on sea-borne commerce, and the necessity she was under of protecting it.

This defensive attitude, which she must latterly have known to be a weak one, was forced upon her in a war carried on at sea, by the necessities of her national life, unless she were possessed of sufficient naval force to have defended her commerce by one part of it, and to have directly attacked the forces of her enemy with the other part of it. But not having such a sufficiency of naval force, or at any rate acting as though she had not, she suffered heavily in the loss of ships and cargoes, and disproportionately with the English loss in that way. I have not had means of comparing the actual amount of the sea-borne commerce of Holland and of Great Britain during the period of the war, but I think we may infer from its transactions, that Great Britain had not nearly so much property on the water as Holland had, and was con-

sequently not nearly so much hampered by the necessity of protecting it as Holland was, and that we may fairly argue that the greater success on our side was as much due to the weakness of Holland's naval position, on account of her greater commerce, as it was to our greater naval force.

At least we may say of the first Dutch war, that it was, on a very extended scale, that sort of "bare action at sea," of which we have seen Sir William Monson speak somewhat slightly at an earlier date. Yet the Dutch themselves admitted that they were brought to greater straits by this twenty-three months of sea war than by the eighty years of land war which they carried on against the Crown of Spain.* But we shall see presently that just as the Spanish contest taught us what the nature of naval war really was, and started us, as it were, on the new footing when we came to take up a new war, so this first Dutch war confirmed the belief, hinted at by Monson and Raleigh, that a great struggle may begin and end on the sea; and went a step further in establishing rules of naval warfare.

I am not concerned in this treatise to go much into the causes of the wars I use for illustrations, and I shall pass over those which led to the second Dutch war. It was the practice in those days to begin early in the way of what men were pleased to call reprisals; and long before the formal declaration of war by the Dutch in January, and by the English in March 1665,† there had been covert attacks going on between the two nations, both on territory and shipping. In the matter of shipping, the most notable "reprisal" was the attack by Sir T. Allen, with eight or nine men-of-war on some forty Dutch merchant ships off Cadiz, which were under convoy of four war-ships commanded by Commodore Brackel; several merchant ships were taken or sunk, and the Dutch commodore was killed. This was on the 29th December 1664, consequently before the actual declaration of war. A great seizure was also made of 130 merchant ships from Bordeaux, but many of them were reclaimed by France and released as not being good prize.

But this indication of how the war would run was sufficient, with other causes, to determine the Dutch in making a great change in their method of carrying it on. They had laid to heart the lesson of the former war, and now saw the impossibility of

* *Columna Rostrata*, p. 139.

† *Columna Rostrata* says February, but the *Life of Cornelius Tromp* says March 14/4.

continuing the struggle for the command of the sea, which was to be done by means of attack, and attempting to protect a great commerce, which was a defensive operation, at the same time. The case was this with them. If they could muster strength enough to make a direct attack on the British fleet, then that fleet could not afford to separate heavy detachments from it for the purpose of attacking commerce, or in fact for any other purpose, the danger of such detachments having been clearly shown by the battle of November 29th, 1653, between Blake and Tromp. They had no hopes of producing a force considerable enough to make this attack, if part of it was to be dissipated in defensive duties which would not be required to any extent if the general naval forces of the British could be overcome, and the command of the sea in the hands of the Dutch thereby established. There was another thing to be said. The men who were employed in carrying on a commerce certain to disappear if it could not be protected, would be uselessly employed in the Mercantile Marine if the War Marine lacked power to maintain its superiority at sea. They were at the same time much wanted to complete the complement of the numbers of ships which must be fitted out if the war was to be conducted with any hopes of success. The cessation of commerce and trade for a time might be a heavy blow to the United Provinces, but at least the enemy was not directly benefited as he would be if, as in the last war, he made such very numerous and rich captures at sea. If the States began the war by accepting and facing a loss, it at least left their hands more free to engage in the direct struggle for victory.

This reasoning determined the action of the States General. An ordinance was issued absolutely "prohibiting all subjects of the United Provinces to stir out of their ports upon pain of confiscation of their ships and merchandises." They likewise ordered that the fisheries of all kinds should be put a stop to, and the more certainly to secure obedience, they forbade the importation of herrings and other salt fish.*

This act was no doubt an admission of inferiority, but not submission to the superior force.

In my first chapter I drew attention to the prohibition of the West Indian commerce for one year by the King of Spain. Anticipating, as I shall constantly do for the sake of illustrating principles, I here note how Prussia, in 1870, prohibited her merchant

* *Life of Cornelius Tromp*, p. 261. *Columna Rostrata*, p. 213.

ships all over the world from putting to sea, lest they should fall into the hands of France. In these two cases, the nations giving up their sea commerce for the time were simply doing what they could not help. Neither Spain nor Prussia had the power to protect their commerce, and they had the choice of two evils when the choice was plain. It was better that their commerce should suffer a pause than that it should simply fall into the hands of the enemy and enrich him.

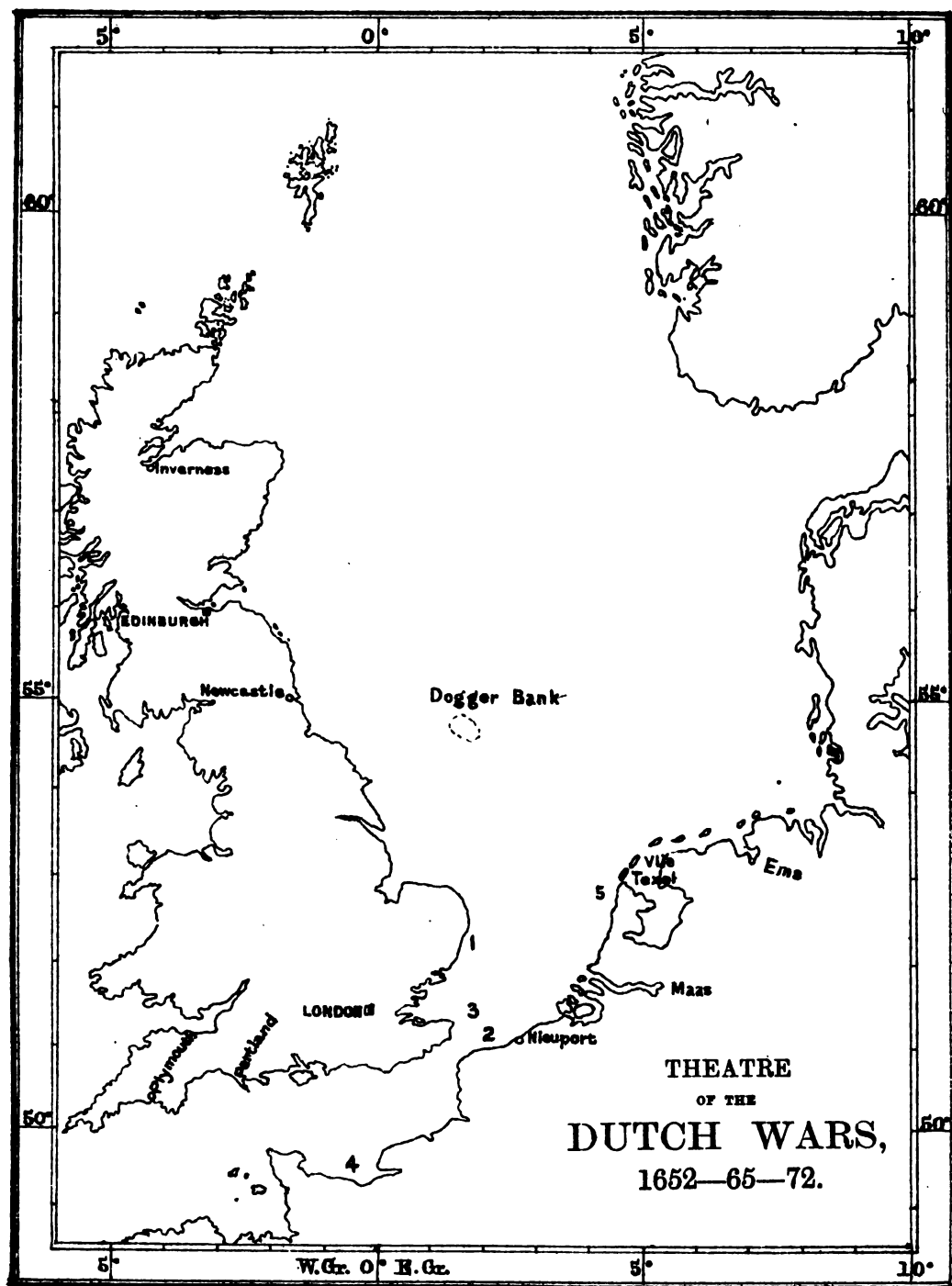
The case was different with Holland. She dropped her commerce for a time, not because she could not hope to protect it, but because she could not make a struggle for the command of the sea, and protect her commerce at the same time. She was like a tigress pausing in her spring and gathering all her forces together to make it with effect.

But though commerce was thus strictly prohibited, there were a large number of Dutch ships on their way home when the order was given, and I think, too, that it is not impossible that the order was not completely obeyed. The Government having, by the ordinance, shaken themselves clear, as it were, from all responsibility in the protection of merchant ships, was the less likely to have interfered with the more venturesome of the merchants. Thus, though in this war the protection of commerce ceases to occupy the prominent place it took up in the first war, and the Dutch fleets no longer hamper themselves with great strings of vessels neither very able nor very willing to offer defence, yet commerce still remains to some extent an object of attack to the English, and is, in cases, defended by the Dutch war-ships.

But that the English were somewhat of the same mind as the Dutch may be inferred from Pepys' note of January 15th, 1664-5. He records Sir G. Ayscue declaring in Council, that "the war and trade could not be supported together."*

The English, in consequence of false information respecting the Dutch movements, hurried their fleet to sea while still short of stores, provisions, and men. James, Duke of York, having Sir William Penn on board him as his Captain of the Fleet, with Prince Rupert and the Earl of Sandwich as his vice and rear-admirals, appeared off the Texel on the 24th April. His fleet consisted of 109 "men-of-war and frigates," and 28 fire-ships and ketches, manned by 21,000 men. Immediate captures followed of several merchant ships, which the Dutch made no effort to

* Quoted in G. Penn's *Life of Penn*, vol. ii., p. 312.



prevent. Even had the Dutch been ready for sea, which they were not, they were really paralysed by the position of the English fleet. It was understood in England that James had "used all possible means to provoke the Dutch to a battle,"* but this was impossible, because of the divided state of the Dutch fleet, and the concentrated state of the English fleet. Thirty-one of the Dutch were in Zealand in the Maas and the Schelde, the remainder were in Holland and Friesland, in the Texel and the Vlie. The English fleet off the Texel was lying across them all, and threatening any that put to sea with destruction.

But what the strategy of the English prevented, the conditions of weather and the incomplete state of the ships allowed. A heavy gale drove the whole of the English forces off the coast, and the damages received, as well as the necessity of completing the fleet compelled a return to an anchorage off Harwich, where the store-ships and victuallers made their appearance.

Thus left free, the Zealand part of the fleet put to sea and formed a junction with the Holland and Friesland parts, from the Vlie and the Texel, on May 12th. The fleet so assembled, consisted of 103 "men-of-war," 7 yachts, 11 fire-ships, and 12 galliots, carrying 4,869 guns, and manned with 21,681 men.† The whole were under the command of Admiral Opdam, and were gathered into seven squadrons, each under its admiral. They made sail across the North Sea to seek the English fleet in its own waters.

The Dutch made a great prize as they neared our shores, capturing nine rich Hamburg ships, valued at between £200,000 and £300,000, which were under convoy of but one frigate of forty-four guns.‡

James, in his anchorage off Harwich, still half manned and busy with his victuallers and store-ships, heard of the sailing of the Dutch and of their capture of the Hamburg ships. Fearing to be caught amongst the shoals about Harwich, and to be thereby powerless to avert the mischief which might ensue, James proceeded, with his victuallers and store-ships, to the more open anchorage of Sole, or Southwold, Bay. Here he brought up on June 1st in the early morning, about five miles off shore. The storing and victualling went on, and also by perhaps a happy fortune, the supply of men arrived in the nick of time.§ The

* *Life of Penn*, vol. ii., p. 325.

† *Life of Cornelius Tromp*, p. 268.

‡ *The Good Hope. Life of Penn*, vol. ii., p. 326.

§ *Life of Penn*, vol. ii., p. 323.

same afternoon the Dutch were seen eighteen miles E.S.E. The victuallers were sent to Harwich, and the fleet shifted further out, want of wind compelling a second anchorage, which was finally quitted at 10 o'clock at night. All next day, June 2nd,* the fleets manœuvred in sight of each other, but it was not till about half-past three on the morning of June 3rd that fire was opened.

The very remarkable features of the battle that ensued will be dealt with in their proper place later on. I can here only state the results. The fleets met off Lowestoft, and the battle lasted the whole day, turning, as night approached, into a retreat by the Dutch and a pursuit by the English. During the chase many prizes were taken by the English, but the pursuit was slackened in the night by the mysterious interference of one of the Duke's suite while he slept; and though the chase was continued during daylight of the 4th, the Dutch were able to anchor amongst the shoals off the Texel, where the English dared not follow for want of knowledge of the locality, without further molestation. James saw the Hollanders pass into the Texel, and then returned to England to repair and refit.

The English in this battle claimed to have captured eighteen sail of the Dutch—though some were recovered by them—to have sunk fourteen, and to have burnt others. The Dutch allowed that nine ships were taken, one blown up,† seven or eight burnt. The English lost the Earl of Marlborough and Admiral Sampson killed, and Lawson mortally wounded; and 250 others killed, with 340 wounded; and the Dutch carried off a 46-gun ship, the *Charity*.

In this first phase of the war we have the complete abandonment of every other idea but a direct and equal struggle for the command of the sea. The English, by their promptitude in getting to sea, were able to repeat the strategy of the close of the former war, and by placing themselves in force off the Texel, they lay between the Zealand and Holland branches of the fleet, and prevented their junction. We know not how things might have progressed had the weather permitted the Duke of York to maintain the position; nor can we say what might have taken place had the Dutch been able to put to sea earlier, and to have followed up the English with greater speed than they did, so as to have attacked them in their

* There is often the difficulty of one day in the dates, the civil day beginning at midnight and the nautical day at noon; so that one writer may call the forenoon of a day June 2nd and another June 3rd, according as he used civil or nautical time.

† Admiral Opdam's ship, with the admiral in her. The locality of the battle is shown by the figure 1 in the chart.

disordered state. As it was, we simply see complete concentration of the naval power of each nation, with a clear conviction on both sides that until one or other fleet has proved victorious, the war can fall into no other phases.

Master of the sea for the time, but apparently not so wholly recovered, or ready, as to be able to transfer the war to the Dutch coast and keep it there, the Earl of Sandwich, now at the head of the English fleet, proceeded to undertake two enterprizes which the victory had left him free to do. In the matter of the reprisals before the war actually began, Sir Robert Holms had attacked and reduced several settlements of the Dutch on the West African coast, had then passed over to New Netherlands (now New York), and had brought that province into subjection. But De Ruiter had followed on his heels, re-capturing to a great extent after him, and making many captures of English merchant ships in the West Indies.

From this expedition De Ruiter was now returning round the North of Scotland, and Sandwich, hearing of it, made a push towards the Dutch coast to intercept him, but failed; for De Ruiter, by keeping far to the northward, and touching at Bergen, in Norway, got safe into the Ems. This was the first attempt which Sandwich was free to make in overwhelming force, so that had he succeeded in meeting De Ruiter's small squadron,* he would have made short work of it; for he had with him some seventy sail.† The second attempt was what the Dutch became open to so soon as they had been forced into their own harbours.

Sandwich got news that some seventy sail of Dutch merchant ships, including the Turkey fleet and ten East India ships, had taken refuge at Bergen. Still being free from fear of molestation by a superior fleet, he detached Sir John Tiddiman with twelve or fourteen men-of-war and three fire-ships to attack them. But the Dutch had made good use of the time at their disposal to prepare a defence, and partly by mooring the heaviest ships so as to keep their guns bearing, and partly by landing guns and erecting temporary works, they had made their position a very strong one. So that Tiddiman's attack, much hindered as it was by the wind, which kept him from advancing and blinded him with smoke, was a complete failure.

Sandwich does not appear to have made any attempt to keep permanently at sea on the Dutch coast. The idea of a strict and

* De Ruiter had originally twelve sail with him. *Life of Cornelius Tromp*, p. 253.

† *Life of Penn*, vol. ii., p. 361.

continued blockade of the Dutch ports must either have been absent from the minds of the commanders, or else the ships in their interior economies and arrangements were still unable to keep the sea for any continuance.* Perhaps both causes operated. At a later date the "great ships" were still of a tender sort, not fit to be trusted at sea in the winter months, both from their tendency to labour and leak in a sea-way, and also from their unhandiness and the consequent dangers they ran of lee shores and other dangers of navigation. But again, it seems certain that commercial blockade was not understood. If the Dutch ports could be watched closely it was certain there were no better positions for making sure of the homeward trade. Yet it seems that when Sandwich detached Tiddiman to operate against the ships in Bergen, he himself took the rest of the fleet to the Shetland Islands, and was there watching for the returning Dutch ships on the 8th of August.†

The Dutch ports were in this way left open, and their fleets left free to reassemble and combine. This was done, and on information of the divided state of the English, the Hollanders sailed towards Bergen in hopes of falling on Tiddiman's squadron. Seeing no signs of him, they took the Bergen merchant fleet under convoy about the end of August, hoping to bring the 70 ships safe into their ports. But here the great enemy of naval operations, the wind, put itself *en évidence*, and scattered both merchant fleet and war ships. Sandwich was back again now, in the middle of the North Sea, and on the 5th September was 90 miles NNW from the Texel, having been for the two previous days picking up largely amongst the scattered Dutch war, and merchant, ships. He had then taken four men-of-war of 40 to 54 guns each, three East Indiamen, and seven other merchant ships. Several other great prizes fell into the hands of the English at the same time, but both fleets appear to have been a good deal broken up and detached, the Dutch not having recovered their dispersion, and

* Pepys records Sir Wm. Coventry as "disliking our staying with the fleet on the Dutch coast, believing that the Dutch will come out in fourteen days, and then we with our unready fleet, by reason of some of the ships being maimed, shall be in a bad condition to fight them on their own coast." (July 30, 1666). *Life of Penn*, vol. ii., p. 412.

† It is difficult to say now, how much the contention between the soldier and the sailor element in our fleets at this time had to do with the apparent want of system. Penn's influence was very great, but the military fleet commanders, such as Monk and Sandwich, were bitterly jealous of him, and may—as Monk certainly did—have scorned the sailor's advice.

the English devoting themselves to prize-making, so that no general action took place.

Sandwich, with but 18 sail about him, and his prizes, got back to Sole Bay on the 11th of September, while most part of the Dutch sought refuge in Goree a few days later, and the scattered squadrons of the English soon found their way home also.

In England everything was now disorganised, as the plague was at its worst all through the months of August and September. The war ships returned into port, and there was no heart to refit them for fresh operations. It was otherwise with the Dutch. Notwithstanding further damages from wind, they managed to get a fleet of 90 sail to sea on the 1st of October, with the intention of falling in great force on the detached squadrons which they hoped to find at anchor in Sole Bay, off Harwich, in the Downs, or at the mouth of the Thames. On the 5th, the Dutch appeared off Yarmouth and Lowestoft, but neither there nor at Sole Bay were there any war ships to be seen. In fact, no traffic of any kind appears to have been stirring, for they seem to have captured only one small vessel. While they were thus to the northward, however, and now working to the southward with light fresh winds, 16 men-of-war lying off Harwich got news of their presence, and instantly weighed and ran up the Thames, where they were seen by the Dutch on the 7th but too far off to be got at. At the mouth of the Thames the Dutch anchored for the night, and next morning made for the Downs, in hopes of surprising some vessels said to be there. But calms and light winds frustrated their intentions, and gave the ships time to escape. From their anchorage at the mouth of the Thames, they reconnoitred and sounded higher up, and might possibly have concerted some other design in the apparent total absence of anything to oppose them. But their crews became terribly and unaccountably sickly, and the sickness showed every tendency of increase. The position was also that there was nothing to be done. All possible prizes were in the harbours and up the rivers; there was nothing going in and nothing coming, or likely to come, out. A determination was arrived at to break up the fleet and send it home. But a small group of six light frigates and four galliots were left to watch the mouth of the Thames for three days, simply to notify to any Dutch war ships arriving, that the fleet had retired. A squadron of 18 of the healthiest ships under Admiral Sweers was also told off to keep the sea for three weeks longer, and to cruise off the Dogger Bank, as well to offer convoy to any homeward-bound Dutch

merchant ships coming north about, as to lie across the English trade to Hamburg and the Baltic, and to attack it. But nothing noticeable came of the proceeding, and the war ceased for the winter months.

The only point of principle which it here seems necessary to take note of, is the small result to either side of a mere temporary command of the sea. The greatest successes of the English against merchant ships were when the war fleets were all but in sight of one another; the greatest successes of the Dutch in the same way were just before the battle of Lowestoft. When the English by their promptitude obliged the Dutch to remain in port, little or nothing came of it. When the English, broken up and disheartened by the Plague, left the sea free to the Dutch, they themselves sum up the result as follows: "The Dutch fleet then did nothing that expedition but cause some alarms upon the coast of England, and all the honour they gained by it was only that of having offered battle to the English fleet whilst they kept themselves within their harbours, as being debarred by a raging and pestilent distemper from accepting it, and having interrupted the commerce of the English merchants, by keeping the mouth of the Thames blocked up for about sixteen days together."* It would appear, so far, as if something more than mere temporary command of the sea is required before full advantage can be taken of it.

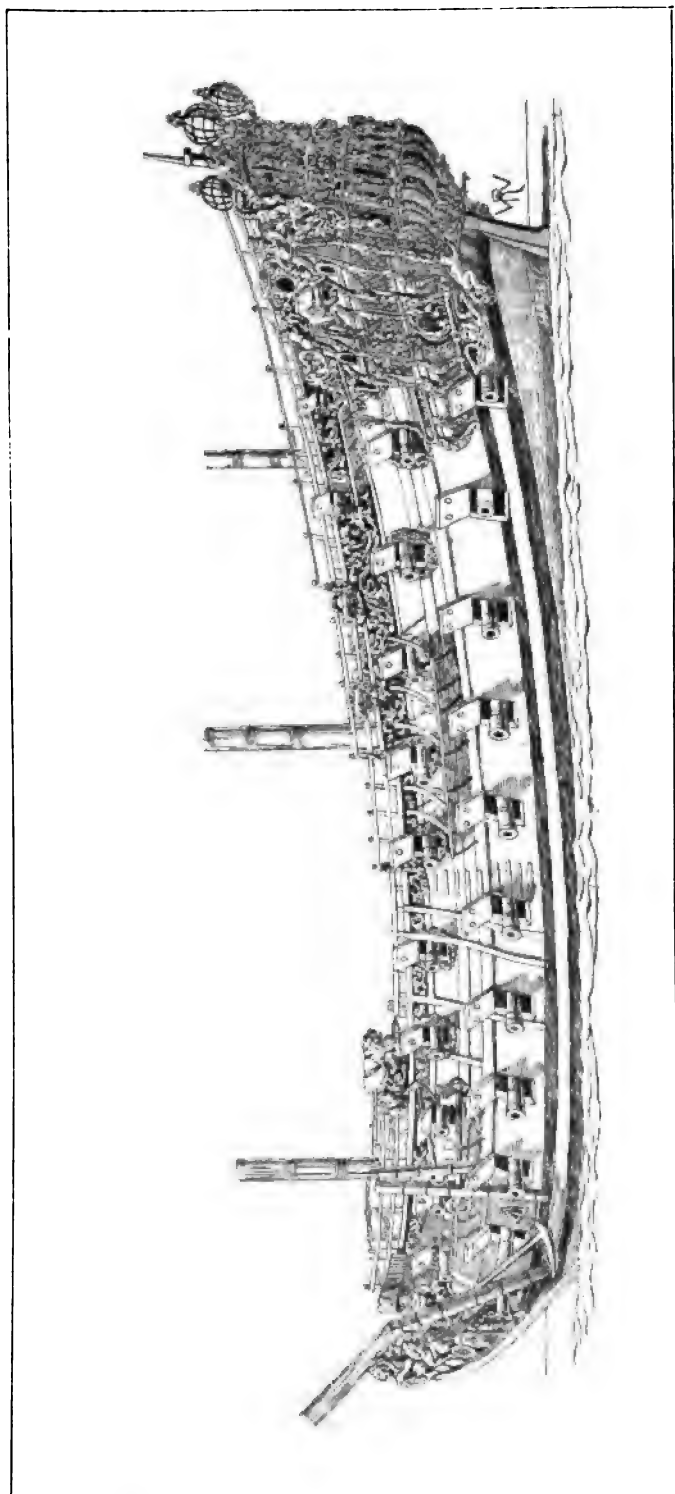
Early in 1666, a new element was introduced into the war by the alliance of France with Holland, the French declaration of war against England, and her threatened junction of a fleet of thirty men-of-war with the Dutch.† Further difficulties for England developed in the declaration of war against her by Denmark and Brandenburg. This French fleet put to sea from Toulon on the 9th January 1666, and was under the command of the Duke of Beaufort, but it did not get as far as Rochelle till near the end of August; it was at Dieppe on the 14th of September, but made no further effort to join the Dutch, and not finding them there, it returned to Brest and nothing more was heard by sea of the French alliance with Holland.

But when the English fleet was ready for sea, towards the end of May, the French fleet, which had been joined by six Hollanders

* *Life of Cornelius Tromp*, p. 324.

† O. Troude, *Batailles Navales de France*, vol. i., p. 107, makes the force 13 ships of from 56 to 84 guns; 16 of from 36 to 42 guns; 3 of 26 and 28 guns, and a small vessel. This was a very heavy force for the time.





THE ROYAL PRINCE.

with fire-ships and ketches, was still a threat, and to meet it Prince Rupert was detached to the Isle of Wight, probably to St. Helens, to bar the passage and prevent the junction with the Dutch.

The English fleet put to sea towards the end of May, and before Prince Rupert was detached, it consisted of 81 men-of-war, mounting 4,460 guns, and manned by 21,085 men. Prince Rupert's detachment left it about 61 sail in strength.

The Dutch having put to sea about the 21st of May with a fleet of 96 sail, carrying 4,716 guns and 20,642 men, had anchored before the 1st of June between Dunkirk and the North Foreland, and there Monk, now Duke of Albemarle, proposed to attack them with only two out of the three divisions of his fleet.

It was blowing hard when the English sighted the Dutch, and the naval officers were strongly against an attack, not only because of the inferiority of force, but because in such a stormy wind, they being to windward, they were unable to use the lower deck guns—the heaviest tier. But Monk overbore all opposition to his will, and ran down upon the Dutch without preserving that order which was becoming recognized as a necessity in a sea-fight. The result was a four days' combat of the severest and bloodiest character. The English were throughout the attacking force, but a large balance of victory remained in the enemy's hands.* The first day's battle ended at 10 o'clock at night, when the English claimed to have burnt two Dutch ships, but to have lost three by capture, and to have had Vice-Admiral Sir William Berkeley killed. The night was spent in preparing for the next day's battle, when the Dutch lost one or two ships burnt, and Vice-Admiral Van der Hulst killed. Nevertheless, the Dutch having received a reinforcement,† Albemarle began to fall back to have the support of Prince Rupert, who was coming to his assistance. The retreat was made in good order, but Monk was obliged to burn certain disabled ships, to prevent them from falling into the enemy's hands. The Dutch followed, but not closely.

On the third day, June 3rd, the *Royal Prince*, bearing the flag of Sir George Ayscue, the largest and heaviest ship in the English fleet, ran on the Galloper shoal, and being threatened by fire-ships, surrendered.‡ The ship was burnt, and the crew, including the admiral, made prisoners.

* The site of the first day's battle is shown by the figure 2 on the chart.

† "Sixteen great ships." *Life of Penn*, vol. ii., p. 389.

‡ The *Royal Prince* was the work of Phineas Pett. She was launched at Woolwich in 1610 in the presence of King James the Queen, Prince of Wales, Duke of York,

Prince Rupert had been warned to quit St. Helens and rejoin the main fleet, and it was known that he had sailed on the afternoon of the 1st. He appeared on the evening of the 3rd, and joining Albemarle, the battle was renewed till night. Next morning, the fourth day of the fight, the Dutch were seen a long way off, and the English making sail for them, the battle was renewed at 8 A.M. and lasted till 7 P.M., when a fog put a stop, and as it turned out a final stop, to the combat.

Each fleet returned to its own harbours; ours was in a terrible plight. "The sad spectacle," says Evelyn; "more than half that gallant bulwark of the kingdom miserably shattered; hardly a vessel entire, but appearing so many wrecks and hulls, so cruelly had the Dutch mangled us."* We lost nine or ten ships, beside the *Royal Prince*; had nearly 600 men killed, 1,100 wounded, and 2,000 prisoners. The Dutch admitted that they had lost from four to six men-of-war.

The Dutch had so far gained a victory, but they were under the impression not only that the victory was more complete, but that its effects were more permanent and far reaching than they really were. In their mistaken view they not only hurried their fleet of sixty sail out of the Texel on the 25th of June, but prepared with it a fleet of transports carrying troops, in order to make a descent on our coasts, having by their victory, as they supposed, secured themselves from interruption at sea. With this fleet, considerably reinforced from other ports, they appeared at the mouth of the Thames. But at the Nore, to their disappointed astonishment, lay a new English fleet computed at eighty-eight sail, with fire-ships and ketches. These ships were the repaired and refitted remains of the beaten fleet, with additions, all collected and approaching completion, by the great exertions of Sir William Penn, now one of the Commissioners of the navy.

The Dutch hopes were entirely frustrated by this unexpected sight, and they found themselves reduced to carrying out the simple operation of blocking the Thames, which they did till the 19th or 20th of July, when the English fleet put to sea after them.† This

and other royal and noble personages. She was 114 feet long, 44 feet broad, and was pierced for 64 guns, though carrying but 55. She was estimated to measure 1,200 tons. The actual armament was, two 30-prs., six 24-prs., twelve 18-prs., eighteen 9-prs., thirteen 6-prs., and four "port-pieces." See Charnock's *History of Marine Architecture*, vol. ii., *passim*. The cut is taken from his plate.

* *Life of Penn*, vol. ii., 395.

† The reasons given by the Dutch author for making no attack are rather confused and obscure. "The English fleet, who had advice of the setting out of the Holland

latter was now composed of eighty-nine men-of-war, with eighteen to twenty fire-ships; and the Dutch fleet was of the same force.

The English came up with the Dutch at a point N.E. by E. of the North Foreland on the 25th of July, and a desperate battle of the usual type ensued.* Prince Rupert and Albemarle held a joint command (in one ship) of the Red Squadron, while Sir Thomas Allen, commanded the White, and Sir Jeremiah Smith the Blue. The Dutch were under the command of De Ruiter. The fight began about noon and continued all day, the Dutch retreating towards their own coast, and the English following. The pursuit was maintained all night and through the next day, with very light winds. The Dutch ultimately found shelter behind the shoals which lie off Ostend, then called the Weilings; while the English, fearing the dangers of shoal water, anchored to the northward, in the Schoonevelde, watching them. The Dutch necessarily admitted the English victory; the usual counter-claims made the English lose either one ship or four ships, and the English claimed that the Dutch had lost twenty ships, sunk or burnt, and 7,000 men killed and wounded.

The Dutch, unable to renew the battle, betook themselves to repairing their losses and refitting. The English, thus free, "passed along the whole coast of Holland, taking ships at the very mouths of the harbours, and causing a hot alarm wherever they appeared."† On arriving near the Vlie, they heard that a great fleet of merchant ships was lying in an exposed position in that river, and also that there were certain unprotected magazines of stores on the Islands of Vlie and Schelling. It was determined to make an attack, and Sir Robert Holms, at the head of nine frigates, five fire-ships, and seven ketches was despatched for the purpose. He anchored at the mouth of the Vlie on the 8th of August, and sending in a ketch to reconnoitre, received from her the intelligence that there were about 200 merchant ships thus open to him. He proposed to attack the ships first, and sent the *Pembroke*—the frigate which drew least water of any in his squadron—with five fire-ships, to burn the merchant fleet. Several ships were destroyed in this

fleet, knew so well how to secure themselves of all the posts where any descent could be made, by placing there both horse and foot, that they quite broke all the designs of the Hollanders, who saw themselves thereby disabled to attempt anything for want of good sounders." *Life of Cornelius Tromp*, p. 374.

* The locality is marked by the figure 3 on the chart. It was often the case that the sound of the guns in these great battles were heard in London, and it was so on this occasion. See *Life of Penn*, vol. ii., p. 409.

† *Columna Rostrata*, p. 182.

way, and the rest cut their cables and ran into shoal water. Thereupon Holms sent in twenty pinnaces, which followed up the unfortunate merchant vessels and burnt all of them except three or four privateers, one trader to Guinea, and a few of the Baltic traders.

Having thus finished with the ships, Sir Robert despatched two frigates and some ketches to make a descent on the Island of Vlie. But this proved a failure in consequence of the rain rendering the fire-arms useless.

There was better success on the island of Schelling, where the men, divided into eleven companies, landed and laid the town of Brandaries, containing 600 or 700 houses, in ashes. Sir Robert had thoughts of repeating the operation on other towns, but having to wait twenty-four hours for tide to suit the time, and fearing a change of wind, he rejoined the main fleet, which, after capturing twelve or fourteen more Dutch merchantmen, returned home. It was supposed that the value of the ships and cargoes destroyed in the Vlie came to more than £1,100,000, without counting the damage done on shore. If we are at all justified in drawing conclusions as to what this sum meant in that age, by comparing it with the public revenue then, and assuming a proportionate sum now, the result is rather startling. The British revenue then was a million and a half; it is now ninety millions. If we can suppose £66,000,000 worth of our shipping property being now destroyed at one *coup*, we may perhaps realize what the loss meant to the Dutch in 1666.

But it is important to recall the conditions under which such attack and destruction became possible. The Dutch fleets had been beaten into their ports in such condition that for the time they dared not present themselves at sea. The English fleet was in full control, for the time, of the Dutch waters off the coast. It was in a position to entirely prevent Sir Robert Holms' operations from being interfered with by any force arriving over sea. The English force detached from the main fleet was a very small one, and only a single ship, and that the lightest of the nine frigates, was actually engaged. Quite conceivably, the presence of only a couple of Dutch frigates in the Vlie would have sufficed to preserve this vast property in safety.*

* "I had an opportunity of much talk with Sir W. Penn to-day (he being newly come from the fleet)," writes Pepys, on August 22nd, 1666, "and he do much undervalue the honour that is given to the conduct of the late business of Holms in burning the ships and town, saying, it was a great thing indeed, and of great profit to us in being of great loss to the enemy; but that it was wholly a business of chance."—*Life of Penn*, vol. ii. p. 415.

As some sort of reply to this, four or five Dutch men-of-war fell upon some seventeen English ships in the Elbe, near Glückstadt, and drove them, with loss, up to Hamburg. But this was obviously, not a legitimate operation of war.

The French alliance had been as yet of no manner of use to the Hollanders. Contemporary historians say that the terms of the alliance were such as could only issue in making France strong by sea, both in providing her with ships built in Holland and by Dutch skill, and by giving her the benefit of Dutch nautical experience. But negotiations were now (August 1666) in progress to bring the Duke of Beaufort up from Portugal in order to form a junction with the Dutch somewhere between Boulogne and Dieppe.

To effect the object, De Ruiter got to sea with a replenished and refitted fleet of 71 men-of-war and 27 fire-ships, having as his second and third in command, Admirals de Gent and Bankert. On the 29th of August the fleet anchored between Dunkirk and Newport, and then, hearing that the Duke of Beaufort had got so far on his way to join him as to have arrived at and left Rochelle, De Ruiter weighed on the 1st September, and made sail through the Straits of Dover.

From remarks in Pepys' diary it seems certain that our fleet was at this moment not at all complete. It was particularly deficient in fire-ships. "But, Lord!" cries Pepys, "to see how my Lord Brouncker undertakes the despatch of the fire-ships when he is no more fit for it than a porter!"* This and other deficiencies may account for what followed, and may tend to reconcile the otherwise irreconcilable stories of the Dutch and English recorders. The Dutch story, which presents a good deal of perplexity, even by itself, is that near Boulogne the English fleet came in sight, advanced on the Dutch, then fled, pursued by the Hollanders, who were unable to bring them to action. The English story is that they made every effort to bring the Dutch to action, but that the latter hauled into shoal water where they could not be got at, and then a gale of wind sprang up and drove the English off the coast. All that seems certain is that nothing was done; that the Duke of Beaufort never advanced beyond Dieppe.

The Dutch, however, captured an English ship, the *Royal Charles*, of 56 guns and 200 men.† But on the other hand Sir

* *Life of Penn*, vol. ii., p. 415.

† I suppose this was a merchant ship. There was a *Royal Charles*, carrying the flag of Admiral Hubbard in the English fleet, but she carried 82 guns and 700 men. See Charnock's *History of Marine Architecture*, vol. ii., p. 398.

Thomas Allen, who commanded the White squadron of the English fleet, met a part of the French fleet, captured the *Ruby*, of 700 guns and 500 men, drove ashore and burnt some others, and forced the rest up the Seine. It seems probable, on the whole, that the threat of the English fleet was sufficient to prevent the junction, and that very possibly Rupert and Albemarle felt that if that end could be secured by the threat, it was a safer plan than attacking the Dutch in the immediate vicinity of so large and powerful a division as the French fleet composed.

There is at this point an indication of a change in the conduct of naval war which subsequently became a permanent characteristic, the features of which must be dealt with later on. Practically, up to this time, we have heard little or nothing of detached cruisers. But now we hear that while the main fleets of both nations were in the Channel to the southward, there was an action between a squadron of five Dutch cruisers, and another of English cruisers under Commodore Robertson near the Texel. Three of the Dutch were captured or destroyed.

We come now near the most curious episode, and also the best known of all that occurred in the three Dutch wars—the Dutch raid on the Medway and Thames.

Negotiations for peace had been set up as early as July in 1666, and they continued with increasing hopes of result through September, October, and November. Then Breda was agreed on as the place where the plenipotentiaries should meet to settle terms finally.

Apparently, at first, the possible approach of peace had no influence on the naval preparation, as on the 2nd October 1666, the Duke of York gave directions for arranging the winter service: an immediate convoy to Gottenberg to bring home our merchant ships, another to guard the merchant fleet to the Mediterranean, and to bring home the ships at Leghorn; winter guards for the narrow seas to secure the trade between Newcastle and London, a few ships in the Downs, and “the chief station at Portsmouth, which may require a good strength, since no man knows what either Dutch or French may attempt for passing the Channel for a conjunction,” a guard “for securing the trade at the Land’s End and soundings, which, if the French lie about Brest (whither they are gone), may require good ships.”* But in a few days there was a great question of money, with heat and strong language in the Council between Prince Rupert and Mr. Pepys.

* Sir W. Coventry to Sir W. Penn. See *Life of Penn*, vol. ii., p. 422.

The former declared no fleet was ever brought home in so good a state; the latter averred that Sir William Penn, who was making the inquiry at Sheerness, had written that he dreaded the reports he was to receive from the surveyors of the defects of the fleet.* And then Pepys and the Court and everyone else seemed to forget all the grave issues surrounding them, and to be concerned only in attiring themselves "solemnly in the Persian manner,"† and were ready to listen to the artfully arranged suggestions of the Dutch, that the war was over, that peace was virtually certain, and that they were disbanding and dismantling their fleet.

Pepys' diary is so curiously illustrative of the circumstances out of which the raid arose, that I cannot do better than quote, as I find it quoted, in the *Life of Penn*.

March 6th, 1667.—To Whitehall; and here the Duke of York did acquaint us (and the King did the like also afterwards, coming in) with his resolution of altering the manner of the war this year; that is, we shall keep what fleet we have abroad, in several squadrons. So that now all is come out; but we are to keep it as close as we can, without hindering the work that is to be done in preparation to this. Great preparations there are to fortify Sheerness and the yard at Portsmouth, and forces are drawing down to both those places, and elsewhere by the sea-side; so that we have some fear of an invasion; and the Duke of York did himself declare his expectation of the enemy's blocking us up here in the river, and therefore directed that we should send away all the ships that we have to fit out hence.

What had happened is told by the Duke of York himself. "The Parliament," he says, "giving but weak supplies for the war, the King, to save charges, is persuaded by the Lord Chancellor (Clarendon), the Lord Treasurer (Southampton), the Duke of Albemarle, and the other Ministers, to lay up the first and second-rate ships, and make only a defensive war in the next campaign. The Duke of York opposed this, but was overruled."‡

Pepys goes on :—

March 23rd.—At the office, where Sir W. Penn came, being returned from Chatham, from considering the means of fortifying the river Medway, by a chain at the Stakes and ships laid there with guns, to keep the enemy from coming up to burn our ships; all our care being now to fortify ourselves against their invading us.

March 24th.—To the Duke of York, where we all met, and there was the King also; and all our discourse was about fortifying of the Medway, and Harwich (which is to be entrenched quite round) and Portsmouth. And here they advised with Sir Godfrey Lloyd and Sir Bernard de Gunn, the two great engineers, and had the plates drawn before them; and, indeed, all their care they now take is to fortify themselves, and are not ashamed of it; for when, by and by, my Lord Arlington came in with

* Sir W. Coventry to Sir W. Penn. See *Life of Penn*, vol. ii., 424.

† Evelyn on the 18th October, quoted in the *Life of Penn*, vol. II., p. 425.

‡ *Life of King James II.*, vol. i., p. 425, quoted in the *Life of Penn*, vol. ii., p. 451.

letters, and seeing the King and D. of York give us, and the officers of the Ordnance, directions in this matter, he did move, that we might do it as privately as we could, that it might not come into the Dutch Gazette presently: as the King's and D. of York's going down the other day to Sheerness was, the week after, in the Harlem Gazette. The King and D. of York both laughed at it, and made no matter, but said, "Let us be safe, and let them talk; for there is nothing will trouble them more than to hear that we are fortifying ourselves." And the D. of York said, "What said Marshal Tourenne, when some in vanity said that the enemies were afraid, for they entrenched themselves? 'Well,' says he, 'I would they were not afraid, for then they would not entrench themselves, and so we could deal with them the better.'"

What appears remarkable in all this is the clear forecast of what would happen, two months before it did happen. It cannot be said that there was any surprise in the Dutch action, nor does it appear that there was much deception on their part. Every one seems to have known perfectly well that if the fleet was not kept up, the enemy would take advantage of it, and sail up the Thames to do what mischief might be done.

The Dutch fell in completely with the expectation. With a fleet of 60 sail and a body of troops, De Ruiter put to sea on the 1st of June and made straight for the Thames, designing not only to copy the example set by the English in the Vlie the year before, but being supplied with troops, to make a much heavier descent upon the country. They anchored at the mouth of the Thames on the 7th, and hearing that 10 or 12 English frigates, with a convoy of 20 merchant ships bound to Barbadoes, were in the Hope,* a detachment of 17 light frigates, with fire-ships and small vessels, was prepared and despatched up the river under the command of Admiral de Gent, on the 9th of June.

It is worthy of remark at this point, how precisely, so far, the practice followed that pursued in the Vlie. The main fleet lies outside keeping guard; the shipping is made the first object of attack, and a detachment of light ships is sent to conduct it. The descent upon the land comes afterwards in both cases, even though in the latter there was military force which there was not in the former.† In the case of the Vlie, the attack is planned and made after the sea has been cleared of fleets capable of interfering; in the case of the Thames, it is undertaken with the knowledge that no naval force exists which is capable of interfering.

De Gent met with foul and light winds, and was never able to reach a higher point than a mile and a half below the Lower Hope (that would be somewhere off Thames Haven), and meanwhile the

* The Lower Hope, above Thames Haven and below Tilbury Fort.

† The whole of the troops, however, were not immediately available. See next p.

ships there all escaped to the upper reaches of the river. This part of the expedition having miscarried, attention was turned to Sheerness and its newly arranged and apparently incomplete defences.

However to-day [observes young Cornelius De Witt, the son of the Pensioner, who was attached to the fleet in a civil capacity], about noon* (the 10th June), as the tide began to come in, we advanced as far as the mouth of the river of Chattam. We presently gave orders to the land troops and marine soldiers to make a descent, and to attack the fort of Sheerness. In the meanwhile we advanced with our men-of-war, and anchored before the same fort. At our approach, one of the King's frigates with some other vessels, and some fire-ships that were there, betook themselves to flight, and the men in the fort ran away likewise before our troops got thither; so that after the fort had been cannonaded about an hour and a half, our seamen scaled it to pull down from thence the English banner. We found there fifteen pieces of cannon, which we carried off to our ships; and a great magazine of masts, yards, and in general of all necessaries for the rigging of ships, valued at near 400,000 livres. We gave order to all our captains to carry, each of them, on board a good quantity, and to set fire to the rest. Because the most part of the troops were separated from us by foul weather, the general officers thought not fit to engage themselves too far up the country with so few people, or else they might have done a great deal of mischief. We are, however, of opinion to keep the river of London blocked up, and to hinder the passage of ships there, as much as 'tis possible for us. And to that effect Lieutenant Admiral De Ruiter is to come up and joyn us with the main body of the fleet.†

Since my last letter of the 10th [he again writes to the States-General] by which I informed your High and Mightynesses of the taking of Sheerness, we have received fresh marks of God's protection by several glorious advantages we have newly obtained. After we had detached away some advice-yachts, and several boats armed, to go and sound the passage from hence to Chattam, we resolved to send up thither to-day Lieutenant-Admiral de Gent's squadron; and accordingly by the favour of a good N.E. wind, we unmoored from Sheerness at six in the morning (of June 12th). About noon we arrived near some English men-of-war, having on board them very large guns, and being very well manned, who made a show at first as if they would make a brisk defence; but as soon as we had burnt four or five of them, some of the others were deserted, so that we took them. I cannot at present give you a particular account of what ships perished in the flames; but I know very well the *Royal Charles*, carrying ninety brass guns, and another carrying a like number, fell into our hands. There are still four or five more a little above us, against which we sent some of ours, and because there is a very great consternation among the English, we doubt not but to take them. According to the advices we have had of the enemy, they have sunk sixteen or eighteen ships, the most part fire-ships, to block the passage of the river against us. But, in spite of all these precautions, our ships are passed up, and we flatter ourselves with the hopes to bring along with us those which we shall have taken.‡

Albemarle was in command at Chatham, and was an eye-witness of all the destruction wrought, which, no doubt, was minimized as much as possible in his official report, which was presented to Par-

* "Up;" says Pepys, "and news brought us that the Dutch are come as high as the Nore, and more pressing orders for fire-ships." *Life of Penn*, vol. ii., p. 441.

† *Life of Cornelius Tromp*, p. 425.

‡ *Ibid.*, p. 426.

liament in February 1668. He complained bitterly of everything. Nothing was complete. Batteries ordered were incomplete; the *Royal Charles*, which had been ordered up the river three months before, was left below to be captured. The ships sunk were not sunk in the right place, and ships ordered to be sunk were not sunk. He "could not get a carpenter but two that were running away." He "had no assistance from Commissioner Pett, nor no gunners nor men to draw on the guns, except the two masters of attendance." And so on, with the usual string of excuses made by those who have failed. But he had seen the guard-ships burnt, and the *Royal Charles* (82) carried off on the 12th, and the *Great James* (82)—otherwise the *Royal James*—the *Royal Oak* (76), and the *Loyal London* (90) burnt on the 13th, while he looked helplessly on, which was enough to set a man throwing the blame on somebody else, and particularly so to him as one of the advisers of this "defensive war." For the ships were all flag-ships, the very finest in the navy, and had carried admirals' flags at sea under his command only a very few months before.

This act of destruction completed the work in the Medway. The Dutch fell back to the mouth of the river again, blocking it and putting a stop to all commerce by their presence. But troops were landed in Sheppy, and foraged indiscriminately for the use of the fleet. De Gent was also detached on the 15th of June to the Shetland Islands to pick up and convoy home the Dutch East India ships. Attempts were also made to send a light squadron up to Gravesend, but between newly-sunken ships and newly-erected batteries the defences were sufficient to frustrate the plan.

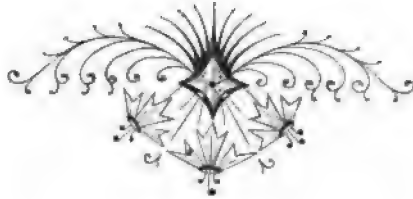
The Dutch being reinforced by fresh troops, it was determined to make an attack on Landguard Fort, and the plan settled was as follows:—1,600 soldiers and 400 seamen were landed—I think it must have been on the beach towards Felixstowe—out of fire from the fort. Vice-Admiral Evertz was, with fourteen men-of-war, to attack the fort on the sea-side, while Rear-Admiral Van Nes was to enter the harbour and attack from that side. Then, when the fire was subdued, the land force was to advance and complete the capture. But they had reckoned without their host; for the shoal water prevented either squadron from operating; only a distant and useless fire being opened by Evertz. The troops made some attempts to advance on the fort in the open, but seeing that without the supporting fire of the ships it would be impossible to succeed, they re-embarked.

The Dutch now set about more regularly blockading the Thames

by smaller force higher up, while detachments watched off Harwich and the North Foreland to guard against surprise either from north or south.

The news of the conclusion of peace reached the Dutch on the 4th of July, but such was the elation of the States at their success, that, on the plea that the treaty was not fully ratified, De Ruiter was ordered into the Channel to prey upon the English commerce and to alarm the southern ports; while Van Nes was directed to push up the Thames again to do what mischief he might. De Ruiter, very possibly because of his knowledge of the situation, did little but to create alarm. But there was a sharp encounter between Van Nes and Sir Edward Spragge, who had got together some naval force and a good provision of fire-ships. The Dutch failed to make any impression, and in the end resumed the blockade of the Thames until the ratification of the treaty of peace relieved them from that duty.

(To be continued.)



Captain Wagon Reid and the Mexican Campaign of 1847.

EDITED BY HIS WIDOW.

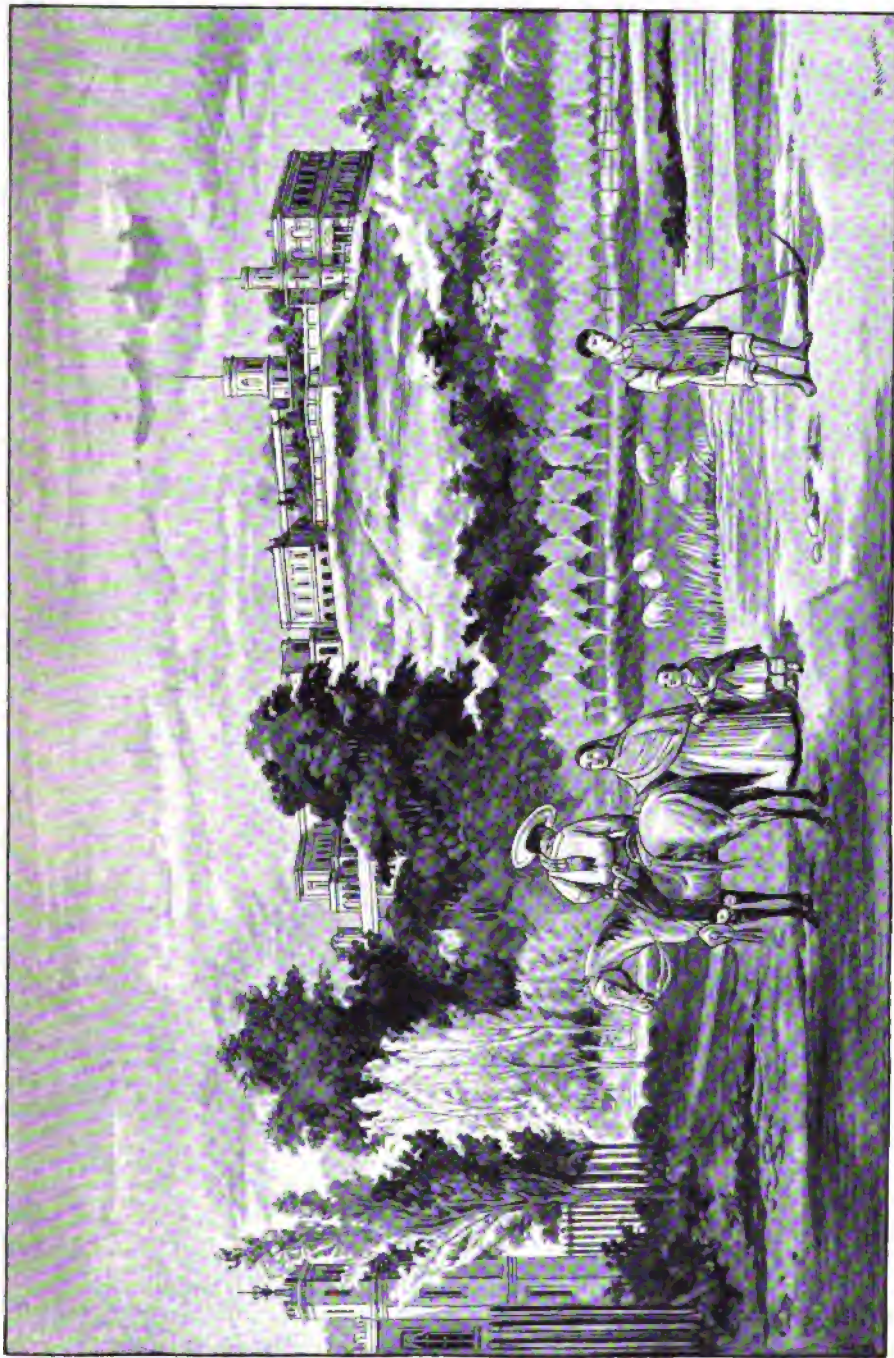
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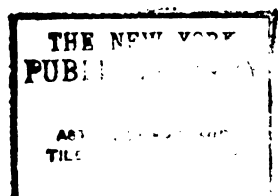
THE commissioners of both Governments met at a small village near Tacubaya, and the American Commissioner demanded, as a necessary preliminary to peace, the cession of Upper and Lower California, all New Mexico, Texas, parts of Sonora, Coahuila, and Tamaulipas. Although this was in general a wild, unsettled tract of country, yet it constituted more than one half the territory of Mexico, and the Mexican Commissioners would not, even if they dared, agree to such a dismemberment. The armistice was therefore abortive, and on the 6th of September the American Commander-in-Chief sent a formal notice to the enemy that it had ceased to exist. This elicited from Santa Anna an insulting reply, and on the same day the enemy was seen in great force to the left of Tacubaya, at a building called Molino del Rey, which was a large stone mill, with a foundry, belonging to the Government, and where most of their cannon had been made. It is a building notorious in the annals of Mexican history as the place where the unfortunate Texan prisoners suffered the most cruel treatment from their barbarous captors. It lies directly under the guns of Chapultepec, from which it is distant about a quarter of a mile, and it is separated from the hill of Chapultepec by a thick wood of almond trees.

On the afternoon of the 7th of September Captain Mason, of the Engineers, was sent to reconnoitre the enemy's position. His right lay at a strong stone building, with bastions, at some distance from Molino del Rey, while his left rested on the works around the latter.

The building on the right is called Casa Mata. It is to be presumed that this position of the enemy was taken to prevent our



CASTLE OF CHAPULTEPEC.



army from turning the Castle of Chapultepec, and entering the city by the Tacubaya road and the gate San Cosme. All the other *garitas*, Piedad, Nino Perdido, San Antonio, and Belen were strongly fortified, and guarded by a large body of the enemy's troops. Having in all at this time about 80,000 men, they had no difficulty in placing a strong guard at every point of attack.

On the 7th General Worth was ordered to attack and carry the enemy's lines at Molino del Rey. His attack was to be planned on the night of the 7th and executed on the morning of the 8th.

On the night of the 7th the 1st Division, strengthened by a brigade of the 3rd, moved forward in front of the enemy. The dispositions made were as follows:—

It was discovered that the weakest point of the enemy's lines was at a place about midway between the Casa Mata and Molino del Rey. This point, however, was strengthened by a battery of several guns.

An assaulting party of 500 men, commanded by Major Wright, were detailed to attack the battery, after it had been cannonaded by Captain Huger with the battering guns. To the right of this assaulting party Garland's brigade took position within supporting distance.

On our left, and to the enemy's right, Clark's brigade, commanded by Brevet-Colonel Mackintosh, with Duncan's battery, were posted; while the supporting brigade from Pillow's division lay between the assaulting column and Clark's brigade.

At break of day the action commenced. Huger, with the 24th, opened on the enemy's centre. Every discharge told, and the enemy seemed to retire. No answer was made from his guns. Worth, becoming at length convinced—fatal conviction—that the works in the centre had been abandoned, ordered the assaulting column to advance.

These moved rapidly down the slope, Major Wright leading. When they had arrived within about half musket shot the enemy opened upon this gallant band the most dreadful fire it has ever been the fate of a soldier to sustain. Six pieces from the field battery played upon their ranks: while the heavy guns from Chapultepec, and nearly six thousand muskets from the enemy's entrenchments, mowed them down in hundreds. The first discharge covered the ground with dead and dying. One half the command at least fell with this terrible cataract of bullets. The others retiring for a moment, took shelter behind some magney, or, in fact, anything that would lend a momentary protection.

The light battalion and the 11th Infantry now came to their relief, and springing forward amid the clouds of smoke and deadly fire, the enemy's works were soon in our possession. At the same time the right and left wing had become hotly engaged with the left and right of the enemy. Garland's brigade, with Duncan's battery, after driving out a large body of infantry, occupied the mills, while the command of Colonel Mackintosh attacked the Casa Mata.

This building proved to be a strong work with deep ditches and entrenchments. The brigade moved rapidly forward to assault it, but on reaching the wide ditch the tremendous fire of muskets to which they were exposed, as well as the heavy guns from the castle, obliged them to fall back on their own battery.

Duncan now opened his batteries upon this building, and with such effect that the enemy soon retreated from it, leaving it unoccupied.

At this time the remaining brigade of Pillow's division, as well as that of Twiggs', came on the ground, but they were too late. The enemy had already fallen back, and Molino del Rey and the Casa Mata were in possession of the American troops. The latter was, shortly after, blown up, and all the implements in the foundry with the cannon moulds having been destroyed, our army was ordered to return to Tacubaya.

Thus ended one of the most bloody and fruitless engagements ever fought by the American army. Six hundred and fifty of our brave troops were either killed or wounded, while that of the enemy did not amount to more than half this number.

The fatal action at Molino del Rey cast a gloom over the whole army. Nothing had been gained. The victorious troops fell back to their former positions, and the vanquished assumed a bolder front, celebrating the action as a victory. The Mexican commander gave out that the attack was intended for Chapultepec, and had consequently failed. This, among his soldiers, received credence and doubled their confidence; we, on the other hand, called it a victory on our side. Another such victory and the American army would never have left the Valley of Mexico.

On the night of the 11th of September, at midnight, two small parties of men were seen to go out from the village of Tacubaya moving silently along different roads. One party directed itself along an old road toward Molino del Rey, and about half way between the village and this latter point halted. The other moved a short distance along the direct road to Chapultepec and

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halted in like manner. They did not halt to sleep; all night long these men were busy piling up earth, filling sand-bags, and laying the platforms of a gun battery.

When day broke these batteries were finished, their guns in position, and, much to the astonishment of the Mexican troops, a merry fire was opened upon the castle. This fire was soon answered, but with little effect. By ten o'clock another battery from Molino del Rey, with some well-directed shots from a howitzer at the same point, seemed to annoy the garrison exceedingly.

A belt of wood lies between the castle and Molino del Rey on the south. A stone wall surrounds these woods. Well-garrisoned Chapultepec would be impregnable. The belief is that 1,000 Americans could hold it against all Mexico. They might starve them out, or choke them with thirst, but they could not drive them out of it. There are but few fortresses in the world so strong in natural advantages.

During the whole of the 12th the shot from the American batteries kept playing upon the walls of the castle, answered by the guns of the fortress, and an incessant fire of musketry was kept up by the skirmishing party in the woods of Molino del Rey. Towards evening the castle began to assume a battered and beleaguered appearance. Shot and shell had made ruin on every point, and several of the enemy's guns were dismounted.

To enumerate the feats of artillerists on this day would fill a volume. A twenty-pound shot from a battery commanded by Captain Huger and Lieutenant Hagney entered the muzzle of one of the enemy's howitzers and burst the piece. It was not a chance shot. This battery was placed on the old road between Tacubaya and Molino del Rey. The gate of the castle fronts this way, and the Calzada, or winding road from the castle to the foot of the hill, was exposed to the fire. As the ground lying to the north and east of Chapultepec was still in possession of the enemy, a constant intercourse was kept up with the castle by this Calzada.

On the morning of the 11th, however, when Huger's and Hagney's battery opened, the Calzada became a dangerous thoroughfare. The latter officer found that his shot thrown on the face of the road ricocheted upon the walls with terrible effect, and consequently most of his shots were aimed at this point. It was amusing to see the Mexican officers who wished to enter or go out of the castle wait until Hagney's guns were discharged, and then gallop along the Calzada as if the devil were after them.

A Mexican soldier at the principal gate was packing a mule with ordnance.

"Can you hit that fellow, Hagney?"

"I'll try," was the quiet and laconic reply. The long gun was pointed and levelled. At this moment the soldier stooped by the side of the mule in the act of tightening the girth. "Fire!" said Hagney, and almost simultaneous with the shot a cloud of dust rose over the causeway. When this cleared away the mule was seen running wild along the Calzada, while the soldier lay dead by the wall.

On the day when Chapultepec was stormed, September 13th, 1847, I was in command of the Grenadier Company of 2nd New York Volunteers—my own—and a detachment of United States Marines, acting with us as light infantry, my orders being to stay by and guard the battery we had built on the south-eastern side of the castle during the night of the 11th. It was about a thousand yards from, and directly in front of, the castle's main gate, through which our shots went crashing all the day. The first assault had been fixed for the morning of the 13th, a storming party of 500 men, or "forlorn hope," as it was called, having volunteered for this dangerous duty. These were of all arms of the service, a captain of regular infantry having charge of them, with a lieutenant of Pennsylvanian Volunteers as his second in command.

At an early hour the three divisions of our army, Worth's Pillow's, and Quitman's, closed in upon Chapultepec, our skirmishers driving the enemy's outposts before them; some of these retreating up the hill and into the castle, others passing around it and on towards the city.

It was now expected that our storming party would do the work assigned to it, and for which it had volunteered. Standing by our battery, at this time necessarily silent, with the artillery and engineer officers who had charge of it, Captain and Lieutenant Huger and Hagney, we three watched the advance of the attacking line, the puffs of smoke from musketry and rifles indicating the exact point to which it had reached. Anxiously we watched it. I need not say, nor add, that our anxiety became apprehension when we saw that about half-way up the slope there was a halt, something impeding its forward movement. I knew that if Chapultepec were not taken, neither would the city, and failing this, not a man of us might ever leave the Valley of Mexico alive.

Worth's injudicious attempt upon the intrenchments of Molino del Rey—to call it by no harsher name—our first retreat during the campaign, had greatly demoralized our men, while inversely affecting the Mexicans, inspiring them with a courage they had never felt before. And there were 30,000 of these to our 6,000—five to one—to say nothing of a host of *rancheros* in the country around and *leperos* in the city, all exasperated against us, the invaders. We had become aware, moreover, that Alvarez with his spotted Indians (*pintos*) had swung round in our rear, and held the mountain passes behind us, so that retreat upon Puebla would have been impossible. This was not my belief alone, but that of every intelligent officer in the army: the two who stood beside me feeling sure of it as myself. This certainty, combined with the slow progress of the attacking party, determined me to participate in the assault. As the senior engineer officer outranked me, it was necessary I should have his leave to forsake the battery—now needing no further defence—a leave freely and instantly given, with the words: "Go, and God be with you!"

The Mexican flag was still waving triumphantly over the Castle, and the line of smoke-puffs had not got an inch nearer it; nor was there much change in the situation when, after a quick run across the intervening ground with my following of volunteers and marines, we came up with the storming party, halted and irregularly aligned along the base of the hill. For what reason they were staying there we knew not at the time, but I afterwards heard it was some trouble about scaling ladders. I did not pause to inquire, but, breaking through their line with my brave followers, pushed on up the slope. Near the summit I found a scattered crowd of soldiers, some of them in the gray uniform of the Voltigeur Regiment; others, 9th, 14th, and 15th Infantry. They were the skirmishers, who had thus far cleared the way for us, far ahead of the "forlorn hope." But beyond lay the real area of danger, a slightly sloping ground, some forty yards in width, between us and the castle's outward wall—in short, the glacis. It was commanded by three pieces of cannon on the parapet, which swept it with grape and canister as fast as they could be loaded and fired. There seemed no chance to advance farther without meeting certain death. But it would be death all the same if we did not—such was my thought at that moment.

Just as I reached this point there was a momentary halt, which made it possible to be heard; and the words I then spoke,

or rather shouted, are remembered by me as though it were but yesterday :

"Men ! if we don't take Chapultepec, the American Army is lost. Let us charge up to the walls !"

A voice answered : "We 'll charge if anyone leads us."

Another adding : "Yes, we 're ready !"

At that instant the three guns on the parapet belched forth their deadly showers almost simultaneously. My heart bounded with joy at hearing them go off thus together—it was our opportunity ; and, quickly comprehending it, I leaped over the scarp, which had sheltered us, calling out—

"Come on ; I 'll lead you !"

It did not need looking back to know that I was followed. The men I had appealed to were not the men to stay behind, else they would not have been there, and all came after.

When about half-way across the open ground I saw the parapet crowded with Mexican artillerists in uniforms of dark blue with crimson facings, each musket in hand, and all aiming, as I believed, at my own person. On account of a crimson silk sash I was wearing, they no doubt fancied me a general at least. The volley was almost as one sound, and I avoided it by throwing myself flat along the earth, only getting touched on one of the fingers of my sword-hand, another shot passing through the loose cloth of my overalls. Instantly on my feet again, I made for the wall, which I was scaling, when a bullet from an escopeta went tearing through my thigh, and I fell into the ditch.

Only a few scattered shots were fired after this. As the scaling ladders came up some scores of men went swarming over the parapet, and Chapultepec was taken. The second man up to the walls of the castle was Corporal Haup, the Swiss, who then fell, shot through the face, over the body of Mayne Reid, covering him with his blood. The poor fellow endeavoured to roll himself off, saying, "I 'm not hurt so badly as you." But he was dead before Mayne Reid was carried off the field.

Mayne Reid's lieutenant, Hippolyte Dardonville, a brave young Frenchman, dragged the Mexican flag down from its staff, planting the Stars and Stripes in its place—the standard of the New York regiment.

The contest was not yet over, advantage must be followed up, and the city entered. Worth's division obliquing to the right, followed the enemy on the Tabuca Road, and through the gate of San Cosme ; while the Volunteers, with the rifle and one or two

other regiments, detached from the division of General Twiggs, were led along the aqueduct towards the citadel and the gate of Belen. Inch by inch did these gallant fellows drive back their opponents; and he who led them, the veteran Quitman, was ever foremost in the fight.

A very storm of bullets rained along this road, and hundreds of brave men fell to rise no more; but when night closed the gates of Belen and San Cosme were in possession of the Americans.

During the still hours of midnight the Mexican army, to the number of some 20,000, stole out of the city and took the road for Guadalupe.

Next morning at daybreak, the remnant of the American army, in all less than 3,000 men, entered the city without further opposition, and formed up in the Grand Plaza. Ere sunrise the American star-spangled banner floated proudly over the Palace of Montezuma, and proclaimed that the city of the Aztecs was in possession of the Americans.

COPIES OF DESPACHES.

1. From Major-General Winfield Scott, Commander-in-Chief.

September 18, 1847.

The following are the officers and corps most distinguished in these brilliant operations. . . . Particularly a detachment under Lieutenant Reid, New York Volunteers, consisting of a company of the same, with one of Marines.

2. From Major-General G. J. Pillow, Commanding Division.

September 18, 1847.

Lieutenant Reid, in command of the one company of the New York Regiment and one of the Marines, came forward in advance of the other troops of this command, Quitman's, participated in the assault, and was severely wounded.

3. From Major-General J. A. Quitman, Commanding Division.

September 29, 1847.

Two detachments from my command, not heretofore mentioned in this report, should be noticed. Captain Gallagher and Lieutenant Reid, who, with their companies of New York Volunteers, had been detailed on the morning of the 12th by General Shields to the support of our battery No. 2, well performed the service. The former, by the orders of Captain Huger, was detained at that battery during the storming of Chapultepec. The latter, a brave and energetic young officer, being relieved from the battery on the advance to the castle, hastened to the assault, and was among the first to ascend the crest of the hill, where he was severely wounded. . . . The gallant New York Regiment claims for their standard the honour of being the first waved from the battlements of Chapultepec.

4. From Brigadier-General Shields.

September 25, 1847.

The New York flag and Co. B. of that regiment, under the command of a gallant young officer, Lieutenant Reid, were among the first to mount the ramparts of the castle, and then display the Stars and Stripes to the admiration of the army.

5. From Captain Huger, Chief of Ordnance.

September 20, 1847.

As there were two companies in support of batteries 2 and 3, I now allowed one

of them, commanded by Lieutenant Reid, New York Volunteers, his command composed of Volunteers and Marines, to join its proper Division, and he gallantly pushed up the hill, and joined it during the storming of the castle.

6. From Colonel Ward B. Burnett, Commanding New York Regiment.
Order No. 35.

The following promotions and appointments having been made "upon good and sufficient recommendations" will be obeyed and respected accordingly:—

"2nd Lieutenant Mayne Reid of Co. B, to be the 1st Lieutenant of Co. G, vice Innes, promoted."

Chapultepec was in reality the key to the city. If the former were not captured, the latter in all probability would not have been taken at that time, or by that army.

The city of Mexico stands on a perfectly level plain, where water is reached by digging but a few inches below the surface; this everywhere around its walls, and for miles on every side.

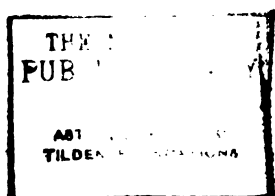
It does not seem to have occurred to military engineers that a position of this kind is the strongest in the world; the most difficult to assault and easiest to defend. It only needs to clear the surrounding *terrain* of houses, trees, or aught that might give shelter to the besiegers, and obstruct the fire of the besieged. As in the wet ground trenching is impossible, there is no other way of approach. Even a charge by cavalry going at full gallop must fail; they would be decimated, or utterly destroyed long before arriving at the entrenched line.

These were the exact conditions under which Mexico had to be assaulted by the American army. There were no houses outside of the city walls, no cover of any kind, save rows of tall poplar trees lining the sides of the outgoing roads, and most of these had been cut down. How then was the place to be stormed or, rather, approached within storming distance? The eyes of some skilled American engineers rested upon the two aqueducts running from Chapultepec into the suburbs of the city. Their masonry work, with its massive piers and open arches between, promised the necessary cover for skirmishers, to be supported by close following battalions.

And they did afford this very shelter, enabling the American army to capture the city of Mexico. But to get at the aqueducts Chapultepec needed to be taken first, otherwise the besiegers would have had the enemy both in front and rear. Hence the desperate and determined struggle at the taking of the castle, and the importance of success. Had it failed, I have no hesitation in giving my opinion that no American who fought that day in the valley of Mexico would ever have left it alive. Scott's army



A FOUNTAIN IN THE CITY OF MEXICO.



was already weakened by the previous engagements, too much so to hold itself three days on the defensive. Retreat would have been not disastrous, but absolutely impossible. The position was far worse than that of Sir R. Sale, in the celebrated Cabool expedition. All the passes leading out of the valley by which the Americans might have attempted escape were closed by columns of cavalry. The Indian general Alvarez, with his host of spotted horsemen, the Pintos of the Acapulco region, had occupied the main road by Rio Frio the moment after the Americans marched in. No wonder these fought on that day as for very life. Every intelligent soldier among them knew that in their attack upon Chapultepec there were but two alternatives: success and life, or defeat and death.

It was reported that Lieutenant Mayne Reid had died of his wound. This intelligence reached his family in Ireland through a newspaper, and they mourned him as dead until they received a joyful contradiction.

He was laid up in the city of Mexico for some time. It was at first supposed that amputation of the leg would be necessary, but on the doctors consulting they came to the conclusion that this would be certain death, as the bullet had only just escaped severing the femoral artery. At last, with skilful care, he made a good recovery, and by the following December we find him on the eve of fighting a duel; but the challenged one "backed out," sending an apology.

Captain Mayne Reid returned from Mexico to the United States in the spring of 1848. A newspaper paragraph in one of the Philadelphia papers thus alludes to him:—

MAYNE REID.

This young hero, whose career in the battles of the valley of Mexico has been singularly romantic, is now in this city, at Jones' hotel, having just arrived from the seat of war. His daring valour in the battle of Cherubusco, and his peculiar prominence in the charge of Chapultepec, where he fell, as was supposed, mortally wounded, have made him quite a historical character in our conflicts with Mexico.

He spent the autumn and winter at his friend Don Piatt's house in the valley of the Maco'chee, Ohio. Here he wrote the greater part of the *Rifle Rangers*, in which he gives us pictures of his Mexican life, returning to New York in the spring of 1849. The question was then going the round of the newspapers, "Who was first into Chapultepec?"

The following testimony was given to Mayne Reid, as he says "Generously given, as only one of these officers was my personal friend, the others being almost unknown to me. I might have had

many more similar testimonies had time permitted me collecting them. But just then I was leaving New York in command of a legion there, organized to assist the struggling Republicans of Europe, and thought little about the laurels to be left behind."

TESTIMONY OF LIEUT. COCHRANE, SECOND REGIMENT OF VOLTIGEURS.

On the morning of the 13th of September 1847, the regiment of Voltigeurs, to which I was attached as subaltern officer, was ordered to clear the woods and the western side of the wall, extending from Molino del Rey to the castle of Chapultepec, of the Mexican Infantry (light), and to halt at the foot of the hill, in order to allow the storming party of Worth's division to scale the hill.

We drove the Mexicans as ordered, but in so rapid a manner that, along with some of the infantry of the Fourteenth, Fifteenth, and Ninth of Pillow's division, we kept driving the enemy under a heavy fire from the castle, and a redan on the side of the hill, clear into their works—the storming party coming up rapidly.

After driving them from the redan, I pushed for the south-western corner of the castle with all the men about me, and scarcely ten yards from the wall, an officer of infantry, and either an officer or sergeant of artillery—judging from the stripe on his pants—were shot, and fell. They were the only two at the time that I saw in advance of me along the narrow path, the rock of which we were scrambling. On collecting under the wall of the castle there were some thirty or forty of us infantry and Voltigeurs at the extreme corner of the castle, and several other officers were there at the same point. The main body had halted at the scarp of the hill, some forty yards from the wall, awaiting the arrival of the scaling ladders before making the final and decisive assault.

I ordered two men of the Voltigeurs to go back a little way and assist the ladders up the hill. As they proceeded to do so they passed the point where the infantry officer above alluded to lay wounded, who, with evident pain, raised himself and sang out above the din and rattle of musketry—

"For God's sake, men, don't leave that wall, or we shall all be cut to pieces! Hold on, and the castle is ours!" or words to that effect.

I immediately answered from the wall—

"There is no danger, Captain, of our leaving this; never fear"—or words to that amount.

Shortly after the ladders came—the rush was made, and the castle fell.

In the course of a casual conversation about the events of that memorable morning, while in the city of Mexico, this incident was mentioned, and the officer who was wounded proved to be Lieut. Mayne Reid, of the New York Volunteers, who had been ordered to guard the battering guns upon the plain, and had joined the party in the assault on the Molino del Rey side of the castle. I spoke freely of this matter, and was quite solicitous to become acquainted, while in Mexico, with the gallant and chivalric officer in question. This is a hasty and imperfect sketch of this transaction. I heard that Lieut. Reid had made a speech to the men of all arms, which had induced them to ascend; but as a party were fiercely engaged at the redan for a few seconds, I could not have heard his remarks above the din, as I was one of the redan party. It may be possible that the above speech is the one alluded to, though from what I heard said of it, he must have made other remarks at an earlier moment.

Of course, I have not given the exact words, as some eighteen months have elapsed since that never-to-be-forgotten day, but I have given the *fact* and the substance of the words, which show far more—the *fact*, I mean—credible and honourable to his courage and his gallant conduct than the mere words could be.

THEO. D. COCHRANE,

Late Second Lieut. Regt. of Voltigeurs.

Columbia, Pa., May 20, 1849.

(A true copy.)

On arrival at Liverpool, Captain Mayne Reid learned that the insurrection was at an end, the services of the legion were not now required, and he assisted them in a return passage to America.

Mayne Reid now finally sheathed his sword, and once more took up the pen, henceforth devoting himself to literature, producing those marvellous tales of adventure with such life-like portraiture, giving to their author an undying fame. The first of these romances was the *Rifle Rangers*, published in London 1850. Of this book a writer in a New York journal says: "In London he found a publisher, and awoke to a world-wide fame. The book that could not be published here was translated and republished in every language in Europe, and returning to this country, found thousands of delighted readers. Your correspondent, calling once to pay his respects to Lamartine, found that gentleman with Mayne Reid's book in his hand, and the eminent Frenchman loud in its praise. Dumas, senior, said he could not close the book till he had read the last word."

Captain Mayne Reid constantly suffered from the effects of the wounded leg, and during a brief sojourn in the United States was a patient in St. Luke's Hospital, New York, in 1870, suppuration of the thigh having brought him to death's door. From the hospital he writes:—

TO THE EDITOR OF THE "SUN."

SIR,

I have been for some days an inmate of St. Luke's hospital, a sufferer from a severe and dangerous malady. To save my life calls for the highest surgical skill, along with combination of the most favourable circumstances, among them quiet. And yet during the whole of yesterday, and part of the day before (the Lord's Day), the air around me has been resonant with what, in the bitterness of my spirit, I pronounce a *feu-de-enfer*. It has resembled an almost continuous fusillade of small arms, at intervals varied by a report like the bursting of a bombshell or the discharge of a cannon. I am told that this infernal *fracas* proceeds from a row of dwelling houses in front of this hospital, and that it is caused by the occupants of these dwellings or their children.

Accustomed in early life to the roar of artillery, my nerves are not easily excited by convulsive sounds, and, therefore, I have not been seriously affected by them. But alas! how different with scores of my fellow-sufferers in the hospital, beside the couch of many of whom death stands waiting for his victim. I am informed by my nurses, intelligent and experienced men, that they have known several cases where death has not only been hastened, but actually caused by the nervous startling and torture inflicted by these Fourth of July celebrations. I have been also informed that the venerable and philanthropic founder of this valuable institution has done all in his power to have this cruel infliction stayed, even by personal appeal to the inhabitants of the houses in question, and that he has been met by refusal, and the reply, "We have a right to do as we please upon our own premises." I need not point out the utter falsity of this assured view of civic rights, but I would remark that the man who, even under the sanction of long custom and the pretence of country's love,

permits his children, through mere wanton sport, to murder annually one or more of his fellow citizens, I say that such a man is not likely to make out of these children citizens who will be distinguished either for their patriotism or humanity.

In the name of humanity I ask you, Sir, to call public attention to this great cruelty and, if possible, have it discontinued.

Yours very truly,

MAYNE REID.

St. Luke's Hospital, July 5th, 1870.

A serious relapse took place on August 10th, and telegrams were sent to his friends: "Captain Mayne Reid is dying." Everything was prepared for his interment, even an obituary notice written.

His wife was allowed to stay at the hospital during the night, being told by the doctors that any minute might be her husband's last. He had been lying in an unconscious state for the past three days, all the signs of approaching dissolution being present. About 8 o'clock on the morning of the 11th, he rallied considerably. The doctors and two of the lady nurses were around his bed, when he suddenly raised himself up, exclaiming in a strong voice: "Turn those she-Beelzebubs," pointing to the two ladies, "out of the room at once; preaching at a fellow, and telling him he's going to die. I'm not going to die. Bring me a beef-steak!"

Everyone was astounded, the poor chaplain being nearly frightened out of his wits. The beef-steak was speedily brought in, and the patient made a feint at eating a portion.

From that day the gallant Captain slowly progressed towards recovery, and, on September 10th left St. Luke's Hospital, and sailed for Liverpool in the middle of October, this being his last visit to the country in whose cause he had shed his blood and earned the laurels of war.

* * *

Four years later, October 1874, Mayne Reid was again laid low. This time an abscess attacked the knee of the wounded leg. Again reports of his death were circulated, and once more arrangements made for his burial. For six months he was on his bed, and rose at last a cripple, never being able to walk again for the remainder of his life without the aid of crutches. In 1882 a small pension was granted him from the United States Government for Mexican war services. The claim was for an invalid pension, and this was afterwards increased, but only shortly before his death.

Captain Mayne Reid possessed great powers of oratory. He would speak for hours on a subject with untiring energy. The language from his tongue flowed facile as that from his pen, his favourite hobby being politics, when he would often astound his

hearers by the eloquence he expended upon his theories—the superiority of republican over monarchical institutions. Occasionally he came across an equally red-hot Tory; then the “fur would fly.” But Captain Reid, by his great charm of manner, rarely gave offence, and was as a rule listened to with good nature on both sides. Often while in the height of a very hot discussion he would suddenly change the theme, dropping at once from the sublime to the ridiculous with such ease that it was difficult for his audience to tell if he had really been in earnest. Had Mayne Reid chosen that path, he would have made a name as an orator. The few occasions on which he occupied the platform amply evidenced this gift.

Though cherishing the strongest republican principles, Mayne Reid was by no means a leveller, but in many things the very opposite to what the expression of his opinions would lead you to suppose. He was an enigma, which only one in the close contact of everyday life with him could read.

His name rarely figured at literary gatherings, unless it were the Geographical or Zoological Societies’ meetings; in fact, he avoided rather than sought literary society.

Before commencing a new book, Captain Mayne Reid would thoroughly study his subject and work out the plot. He would make rough drafts at first, which were afterwards thrown away.

His mode of writing was peculiar, rarely sitting at a table, but reclining on a couch, arrayed in dressing-gown and slippers, a portable desk and fur robe thrown across his knees even in hot weather, a cigar between his lips—which was constantly going out and being re-lighted—while the floor all around him was strewn with matches. Latterly, after he became a cripple, the dressing-gown was discarded for a large Norfolk jacket, made from his own sheep’s wool; and he would sit and write at the window in a large arm-chair with an improvised table in front of him resting on his knees, upon which at night he would have a couple of candles placed, the inevitable cigar, matches, and whisky toddy, being the accessories.

He had a singular habit of reading newspapers and manuscript in bed, with a lighted candle on his pillow; at least a score or more of times he has been found in the morning with the paper burnt to a cinder all round him, and neither himself nor the bed-clothes in the slightest singed.

During the last few years of his life, Captain Mayne Reid may be said to have literally turned his sword into the “plough share.”

He resided for some time near Ross, Herefordshire, amid the picturesque Wye scenery, where, in addition to his literary work, he occupied himself in farming, growing crops, and rearing a peculiar breed of Welsh mountain sheep, succeeding, at length, in getting a flock all with the same peculiarities, jet black bodies with snow-white faces and long white bushy tails. An account of these sheep appeared in the *Live Stock Journal*, 1880, called "Jacob's sheep," some of them being "ringed and speckled."

The Captain used to say jestingly that he should go down to posterity as a breeder of sheep. Their mutton appeared on his table, and out of their wool he had cloth woven, from which he wore garments made to his own design.

He was also a large potato grower, experimenting upon Mexican seed. Some clever articles upon potato culture from his pen were contributed to the *Live Stock Journal*, 1880.

The Mexican hero was never an idle man; and, though his sword lay sheathed in its scabbard, his pen was not idle. His brain was as active as ever till within a fortnight of his death.

On October 22nd, 1888, Mayne Reid had slept his last sleep, had fought his last battle.

* * * *

An irregular block of white marble,* on which is carved a sword and pen crossing; with a quotation from the "Scalp Hunters"—

This is the weed prairie;
It is misnamed,
It is the Garden of God,

marks his last resting-place in Kensal Green Cemetery, London.

* Erected by his widow "In Loving Memory."



Reminiscences of the Siege of Delhi.

By MAJOR-GENERAL WEBBER D. HARRIS,

LATE 104TH BENGAL FUSILIERS.

III.



PARTIES of soldiers were now daily sent to the Engineer's park to be instructed in escalading, filling sand-bags, fascines, &c., and I think it was on the 8th we broke ground. The idea was a very bold one, viz. to erect and arm batteries in the open, without approaches, and without any attempt to silence the opposing guns. The first battery was erected under the "Sammyhouse" picket, which had been all through held by the Rifles. I never saw it, but was told it was manfully served till it caught fire, when the guns were withdrawn.

I was ordered one evening to take a party of 280 strong to the gate of the Metcalf garden, near which we had captured the two guns, and await orders from the Engineers. We had our arms, and the men carried shovels and picks also. We were soon joined by the Engineer, who, deprecating all noise, requested me to assemble the officers, and he would show them where to take their men. He said that he had marked out the ground for a battery to the right front of Ludlow Castle, a large house about 900 yards from the city walls. The night was very dark, and he had no little difficulty in finding the tapes, but when found we could distinctly see our work. To rear of the tapes, which marked the line of the battery, were piles of sand-bags. We went back to our men, and enjoining strict silence and no pipes, marched them down, piled arms, told off a small party to cover our work in case of attack, and then commenced with a will. The ground was hard, and consequently a good deal of noise was made with the spades and picks, and it was strange the enemy did not find us. That they suspected something was going on was apparent, as they kept throwing an occasional round of grape, but never in the right direction. They, however, managed to find us with their mus-

ketry, or perhaps it was only haphazard firing, but several men were hit. We worked for four hours, and were then relieved by a fresh party of the 1st Fusiliers. The battery was not completed that night, and at daybreak our parties were withdrawn. The enemy might now have destroyed all our work, but made no attempt. This want of enterprise was accounted for by the supposition that they could not imagine we had left our work without proper protection, and they feared an ambushade. The next night the working parties were out again, and the batteries finished and armed. They were, first, a howitzer battery on the right front of Ludlow Castle, four guns. These were to assist in breaching the walls, and to knock away the parapet on any retrenchment that might be erected; second, a battery of nine 24-pounders to left of the house, to effect a breach. This was manned by men of the 9th Lancers, assisted by artillerymen. There was, I think, an officer to every gun; the aide-de-camp before mentioned, who came with me from Umballa, being one of those who kept us alive and lively by occasionally producing most delicious iced champagne. Goodness knows where he got the ice from, but there it was, and I can assure you the wine was very acceptable, as it was frightfully hot, and we had no shelter, except from a few bushes, and what we could rig up with our cloaks. The parties detailed to cover these batteries were located very comfortably in the house where the artillery was, and we went there during the intervals of fire, and while the guns were cooling. Across the road was the mortar battery, six very heavy pieces. In front of this, and in a hollow cutting, were placed a number of cohorns, and to their left front was the Custom-house battery, which was only about 100 yards from the water bastion, the curtain of which it had to breach.

Early in the morning on which these batteries were to open, I was sent down with 100 men to cover the mortar battery. It was a scene of tremendous excitement, and the ball opened with a salvo from the breaching battery, which was taken up by all the others except the Custom House one, which had been erected under a close fire, being so near the walls, and which was found to have embrasures, from which the portion of the wall to be breached could not be seen. This was speedily remedied by blowing away their checks. It was a splendid sight and immense fun to watch the walls crumbling away. The enemy seemed to be disheartened, and only returned an occasional shot, which did little damage; but getting suspicious about the mortar battery, they

contrived to find its range with a heavy gun or two in the Selimghur. I lost several men and two sergeants, and was very nearly extended myself, a heavy shot striking the ground close to my feet, covering me with dust, and quite upsetting my nerves. We could get no cover from these guns, as they were above us, and to our flank. When I first arrived with my party, and after reporting myself to Tombs, who was in command, I asked if he had any orders for me. He simply advised my getting my men under cover, and keeping them there, as the officer who commanded the covering party, which had been employed in making the mortar battery, had lost a number of men by rushing out whenever he saw a small party of rebels, their friends shooting his men down from behind the walls.

Immediately to the right of the battery I found a natural protection from any direct fire, in the shape of a bank of rock protected by brushwood. Behind this I distributed my men, giving them what instruction I could in providing themselves with shade from the sun. I made for myself a little nest close to the battery, but quite hidden; into this I put our boxes of spare ammunition, and on these I made my bed. At the time I never thought of it, but I ran a double danger; for had a shot hit these boxes, they would have exploded. I have before mentioned that the guns from Selimghur were very jealous of this battery, and put several shots into and round it. One of the artillery officers did not like this, and asked me to get my men to make their parapet higher. I put some of them to work; but there being at the time no firing, and they seeing the artillerymen taking their ease, took no pains, nor did I insist on it, as the commanding officer had given no orders.

On the morning of the 12th, after putting things square, I loafed about from battery to battery, watching the fire, but being always within sight of my men. It was here that we had the first difficulty about our servants bringing food, as the rebels, either from alarm, or not getting the range of any particular battery, fired wild, their shots going over us, and killing several of our servants and frightening the rest.

In the afternoon the rebels knocked a hole in the wall of the Moree bastion, and put a gun in a position to rake all our batteries. It was very annoying. I was ordered to report once a day to the officer in command of the Custom House battery, to reach which I had to pass the Cohorn battery, the officers and men of which had received a good deal of attention from this gun. I

returned and reported this to my battery commanding officer, when one of the heavy mortars was laid for it. An immense deal of pains were taken, and the very first shell dropped just over the gun and burst; this was enough, we had no more shots from it. When we got into the city, I saw the gun dismounted, and the carriage and platform in fragments. After witnessing this shot I started again to make my report, going through some orange gardens, the same into which I had seen the green sepoy disappear the day when we captured the guns. Here there was a strong party of native troops, but behind a wall which separated them from the battery. To reach this I had to go through an archway, and was advised by a rifleman on sentry to run through it sharp, as it was in the line of fire; but this my dignity would not allow, and on getting through I found myself close to the battery which was heavily engaged, but so near to the walls that there was great danger in laying the guns. I found the commanding officer under a tree with a few officers and men round him. He received my report, and I was much struck by his serious manner, he being, on other occasions, very brusque in his manner.

On the 13th I slept very well; but was roused up once by a shot which killed three of my men close to me. At daybreak I was up. The batteries were quiet; they had been firing an occasional round all night. I went in the direction of Ludlow Castle, where an old artillery officer was examining the walls. He put some questions to me about the enemy and the direction of their fire. I told him that all their guns in front had been silenced, but that I could point out some that still kept up fire; and, moving to the front of the house, showed him the direction of those which had caused us so much loss. It so happened that at that moment these guns sent us a flight of grape, which pattered all round the house and made us move away. The result of his inspection, which certainly was not a very searching one, was that he was not at all satisfied with the work done by the howitzer battery.

On the afternoon of the 13th I received a note from our commanding officer, telling me that there had been a council of war, composed of generals and commanding officers, and that the assault was to be given in the morning; our regiment was to go at the breach at the water bastion, the 75th to take the main breach. My party, reinforced by Rothney's Sikhs, was to form the reserve of our brigade. All that day a very heavy fire was kept up till dark, our mortars being directed on the church, where there was a large open space in rear of the breach, and where it was supposed the

rebels were likely to assemble their force, to resist our assault, which they well knew was imminent. From subsequent observation I can assert that, if any force was in this place, they must have found it a very hot one, as when we got in we found it literally paved with fragments of shell, and the church dome like a colander.

Just at dusk an officer of Engineers came up to me, and, thinking I was in command, being the only man he saw who looked like an officer, all the others in the batteries being in their shirt sleeves, asked me to order the fire to cease, as he was going with a party to examine the breach. I had forgotten that this was quite a necessary operation, and told him that it would be rather dangerous work, as we had all along been aware that the Sepoys were about in every direction in front of the walls. He told me that the safety of the party would be secured by their advance being made on the line of fire of the breaching batteries. These fired a salvo, and the party moved on. They returned in about an hour, reporting that they had seen any number of white figures on each side, but no notice was taken of them. Two of their party had got into the ditch and up the breach, which they reported as "practicable."

I turned in early, and waking in good time, got my men together, and received a message from our commanding officer that he had gone on, and that I had better follow sharp. The road to the front was very narrow and I found it blocked up with a battery of horse artillery, but we managed to get through, and joined the regiment in the orange garden before mentioned. Here was a scene of the wildest confusion. The actual road was occupied by the whole of our brigade in fours—river to our left and all impedimenta on our right. These consisted of mules and camels carrying spare ammunition, doolies (litters) with their bearers, medical men with their staff, officers' chargers, &c. All the natives were, of course, shouting at the top of their voices, and to add to the confusion, the rebels got our range with a heavy gun on the other side of the river, and put two or three shots right into this mass of human beings. Several casualties took place from this, as well as from musketry coming from the archway previously alluded to. The column moved on at last. I believe it had been waiting for the signal, which was the blowing in of the gate. This we never heard, as the advance battery close to us was firing heavily. It suddenly ceased, and then our stormers moved out, preceded by a cloud of skirmishers of the 60th, who found what cover they could, and tried to keep down the

hot musketry fire from the walls. As soon as I got through the archway I moved my reserve under cover, behind a row of huts parallel to the battery, I myself keeping a sharp look out for any signal for us to advance. This soon came from our commanding officer, as he rushed to the front. I called on my party, and followed. I now transcribe from a letter written by me to friends at home, a few days after the assault, and when all was fresh in my memory.

Extract from a letter dated Delhi, 26th September :—

On the evening of the thirteenth I received intelligence that we were to assault a breach made by some of our heavy guns in the curtain of the "water bastion," our battery being at the Customs' House, close to the river side.

The anxious and long-awaited-for moment arrived, when I moved my men down to the Customs House Compound close to the river. The enemy had by this time taken the alarm, and their fire was very heavy, their guns from the opposite side of the river dropping shot and shell into our columns, from which there was no shelter.

While in this exposed situation some most unaccountable delay took place, but at last the signal was given, and the "ladder parties" left the protection of the batteries. I should have told you that seventy men of each regiment had been ordered to go in advance, to plant ladders to enable us to climb up the other side of the ditch.

This party of our regiment met with such a tremendous fire that they could not advance, and, being unsupported, were obliged to come back. This I did not know till afterwards. I called on my reserve almost immediately, and running on ahead to look where I was to take them to, saw, immediately before me, a breach, so waving my hat, cheered them on, and we rushed up to the ditch opposite the Cashmir breach. Some other party had planted ladders at the other side, and were already scrambling up the broken wall, but the ditch was deep and a forest of our bayonets bristled at the bottom. I deliberated how to get down, and at once decided in favour of a roll, so sat down on the edge and let myself go, when it didn't take long to reach the bottom. The men followed my example, but being more encumbered than I was some came to grief.

All this time the enemy was plying us with musketry, and knocking over any number of our men. The crowd was so dense in the ditch that I found it impossible to get to the ladders by pushing, so crawled between the legs, and got up the ladder backwards, and was soon on the top of the wall and in Delhi.

Now commenced a dreadful scene of confusion, which, had the sepoys taken advantage of, they might have cut us up to a man, as they outnumbered us twenty to one. Officers could not find their men, and Europeans and natives were all mixed up in a confused mass, all talking, and, to add to the confusion, some of our Seik soldiers commenced firing in the air. I suppose there were not less than 2,000 men, in a small space inside the Cashmir Gate. I collected a few of my men together, when the enemy brought a light gun to bear upon us from the Church Garden. The men fell fast, and nobody seemed to know what to do. Just then our commanding officer came up and took us round in rear of the Church. In going there, we were fired into by a body of Seiks in our own pay, which did us a lot of harm. And they were only stopped by my rushing towards them and waving my hat.

As soon as we got through the Church Compound, all the regiments, with these Seiks, formed up, and we were then led by an Engineer officer round the walls in the direction of the Moree bastion. The troops marched along a very narrow lane, with the city wall at their right hand. I managed to clamber on the parapet and then saw

the 9th Lancers, with some of our Seik cavalry, with some Horse Artillery underneath me. I raised my hat on top of my sheathed sword and gave a cheer, to which they responded.

We then passed the celebrated Moree bastion, the battery of which had done our troops so much mischief these last three months. Our artillery thought they had knocked it to pieces, but we found it in a beautiful state of repair, and all the guns mounted to receive us; but the gunners had run away. Going on, we came to the Cabool Gate, and here it was we met with most determined opposition.

The enemy had brought infantry and guns to command the street leading up to the gate, the said street being divided down the middle by the canal, so that we could make no formation. Our regiment was told to hold the gateway, and while proceeding to do so we received a charge of grape, which killed an officer and five men.

The place was becoming too hot for us, as the enemy were advancing over the tops of the houses and firing down on us, who could not return a shot.

Brigadier Nicholson now ordered the party to continue their march by the narrow street, himself leading, walking on the wall as I had been doing. They had scarcely gone two hundred yards when they were astonished by the fire of two guns, planted across the road, which killed and wounded six officers, the Brigadier being himself one of the latter; but his wound was mortal, as were those of three other officers. They came on the guns before they were aware of their being there, and every shot told with fatal effect. They were obliged to retreat, and we sent a party to assist and cover them, and by so doing lost an officer, our sergeant-major and several men. This was the worst part of the whole business and was very badly managed. We were now told to hold what we had got, and remain where we were. This was no easy matter, as the enemy's guns completely commanded the street, and there was only a house behind which we could get cover, and here were crowded some 1,200 men. Every now and then a shot would come right in amongst us. It was suggested that an attempt should be made to crown the houses, so that we could keep down their fire, and a party was sent down each side of the street to occupy the highest houses.

A couple of our 9-pounder guns were now brought up by Colonel Greathead, and they soon induced the people to decamp from our immediate neighbourhood.

In the meantime I took a party of thirty Europeans and thirty Seiks into an inclosure to the left of the road from which our men had been driven, and established a post about 200 yards down it, so that they could not attack us by that line without our having timely notice. They did make several attempts but never got beyond this post, and lost numbers of their men, and only succeeded in killing one of mine, who put his head too far over the wall and got a ball through it. It was now about 2 P.M.; we had to look after our wounded, and get some food for the men. This was all arranged before dark, and all necessary precautions against surprise being taken I lay down to sleep on the steps of the canal, and was awoke in a most unpleasant manner by a general fire of musketry. On rushing up to see what was the matter, I found that two fanatical sepoys had rushed madly at our post, shouting like demons. They were immediately shot by our sentries, but the firing of their muskets had so excited the Seiks who were with us that they all commenced firing at once, and in the confusion shot one of their own officers dead, who was close to me.

The next morning we heard that the other column had captured the magazine, and were busy in erecting batteries to get into the palace. We had our men housed in a large house, close to the gate, and remained there till the morning of the 21st.

During this time I went about inspecting the different places. All the houses were ransacked, and the men who had not left killed. I saw hundreds of dead bodies, and we were obliged to have large working parties to knock down the walls of the houses on top of the putrid masses. Our soldiers have indeed taken vengeance for the inhuman butchery of their countrywomen. They have, however, spared women. I

myself only saw three women hurt; two were killed, and the third wounded by a piece of shell. One of the women killed had a child of about three months old by her side, which was alive when I found her. I took the child, and made it over to another woman, who I persuaded, under fear of my dire displeasure, to take care of it.

One day I got leave to go into camp, and never saw any place look so miserable. There was a mile or so of tents, with scarcely a man to be seen about, where all used to be life and bustle.

I visited the hospital, and found that almost all our wounded were very severely hit; one officer dead, one hit in the mouth—a wound so dreadful that the doctors say it would have been a mercy had it been fatal—two others less severely. One of them, a married man, had a ball through the calf of his leg, and rather congratulated himself on it, as it will send him back to his wife to be nursed, and he will escape the ensuing campaign, when he might get something worse.

On the 21st we made our next advance towards the Lahore Gate; but instead of going round by the road, we took them in flank by working through the houses, and got there without loss. I was ordered with fifty men to go down the street towards the palace, called the Chandee Choke. This I did, and found it deserted, though every preparation had been made to oppose us.

A party soon after advanced down this street with guns, to occupy and blow open the Jumna Musjid Palace gate, when it was discovered that the rebels had bolted to a man.

This letter gave a very good outline of events, which I can fill up from memory.

And first about Nicholson's death. As mentioned in the above letter, our party advanced to the Cabool Gate without opposition, and was proceeding on the route towards the Lahore Gate, when someone in authority seemed to recollect that we had been ordered to hold the former. This order, I think, had been given at the council of war the previous day. Anyhow, we retraced our steps after going a few yards down the lane.

I well remember, about this time, seeing our Brigadier, whom I now met for the first time. I do not know if it was he who had directed our retirement, but he approved of it, and remained with us until Nicholson came up, who, in an excited manner, said he was going on to the Lahore Gate, and tried to get a portion of his force together.

He had with him the head-quarters and several officers of the 1st Bengal Fusiliers, but not many men; but with them he started. The officers were in front, three abreast (which was as many as the lane would allow of), and himself on the wall. He did not ask our support, nor did we anticipate any opposition. Our men were all about, sitting in what space they could get, and smoking.

Just then a Sikh Regiment came up, with spare ammunition on mules.

Suddenly there were two shots from guns heard from the direction of the lane, then a scattered fire of musketry, and then

a hurried stampede of men and officers, many wounded. Nicholson himself, looking very pale, passed us, assisted by two men, but did not speak. Then came Greville, his arm in a sling, looking very black, and asking our commanding officer why he did not support them. Next came young Speke, apparently badly hit, but speaking coherently.

One of our officers asked to be allowed to take a party down the lane, but was refused. He, however, got some men together and started, but nearly the whole party was wounded, himself dangerously, our sergeant-major and two colour sergeants seriously.

I saw the officer commanding the 1st Fusiliers under a wall dying, but before I could get to him the rebels appeared in numbers on the tops of the houses, led on by one of the native officers in his native dress, topped by his regimentals, and in his hands a sword and shield. He looked a strange object. A round shot came up the street, and striking one of the ammunition boxes blew it up, killing several men and the mules.

Our men got into the dry bed of the canal, which they lined, and opening fire on the men on the houses drove them away. The artillery at the further end of the street annoyed us very much. I collected a number of wounded men, put some into a small house over the canal, and others into the gateway. Here came in a round of grape, wounding several wounded men again.

Thinking it would be better could we get the gate open and move the wounded, we took some men and cleared away the brickwork, but found it a fixture, having been bricked up outside as well. Two light guns now joined us, and I asked the officer in charge to try and blow it open. He loaded a 9-pounder and ran it up, but only made a round hole. The officer commanding the 8th Foot came up, and, after consultation, it was decided to move up the street and occupy the high buildings some way down. The guns were run down some fifty yards by men pushing behind the trail, which was elevated, and acted as a screen. A round of grape sent in sharp, and we moved on again.

This was too warm for the rebels, who left us for a time, but when the guns were withdrawn soon returned. We noticed all through this business that the rebels were indifferent to musketry, but could not stand guns. Our commanding officer called on me to go with him to the top of the gate to see if we could make a breastwork to command the road up which we expected an attack. Several officers came with us, and as we went up the inclined way a round of grape came in amongst us,

mortally wounding an officer, and killing and wounding several men. I put the former into the small house mentioned, he begging to be taken into camp. This I asked the commanding officer to allow, but he very rightly refused, as were every wounded man to be carried to the rear no fighting men would be left.

No litters had yet come up, and it was afterwards found that parties of the rebels were still left between us and the breach, who attacked all stragglers. It was very dreadful for the wounded, having no doctor to look to their hurts; and to add to their misery several shots struck the house where they were lying, when all who could move rushed out with frantic cries. Later in the day a doctor came up with litters, and moved as many as possible. One poor fellow's leg was amputated on the spot, the doctor first requesting me to send all our men away, as he said nothing so demoralized soldiers as witnessing "capital operations."

The enemy's fire slackened towards evening, and our stragglers began to drop in. No doubt many of them had been plundering, and some had signs of drink on them.

Our quartermaster-sergeant had, with great pluck, managed to bring up our spare ammunition and grog. To do this he had to pass through a part of the city still occupied by the rebels with only a corporal's party. They suddenly made their appearance at the end of the street which we knew had been strongly occupied by the sepoys only a short time before. It did one good to hear the cheers which greeted them.

The day was very hot, with a bright sun, which suddenly became overclouded in a very peculiar manner, and we discovered that there was an eclipse actually going on. The rebels had made several attempts to rush our position from up the lane in our front, so I was ordered to push on a party to try and stop their movements.

I advanced through an archway, to find myself inside a walled enclosure where there were some thirty dead bodies, one, a woman, killed by a shot through the heart. There was a small baby asleep by her side. I took it up and going on came to a nest of small houses, in which were a number of men and women. To one of the latter I made over my small charge with orders to take care of it. To induce her to do so I made over a house to her and her husband, in which there was a heap of grain which I said they might have if they would be careful of the baby. I here found a part of one of the buildings projecting into the lane at right angles, so breaking a hole through the wall, my men could command the space in front.

put a stop to all further rushes, but I had one man killed

dead when on sentry. The enemy became very jealous of this picket. Not being able to get at it with their guns, they sent many rounds of grape in our direction which merely damaged the trees over our heads. In one house I found a very pretty young woman with her arm broken by a fragment of a shell. The doctor before mentioned took it off, and watched her till she recovered. There was also a beautiful boy about five years old, wounded in the flat of the foot, the bullet having run up the leg and lodged. The hurt was mortal, mortification having already set in. The poor child's patient look, and large liquid, frightened eyes, haunted me for a long time. His mother was with him, and told us he was sleeping on the roof of the house when hit, during the bombardment. Notwithstanding our assuring these people of our protection, and giving them means of living, we discovered them trying to leave, by going to the front, when they would have told our position and numbers to the rebels, so we got them together the second day and passed them out of the city.

Close to our gate was a very large house, well furnished according to native ideas; into this we put our men, first posting a sentry on the roof. Two, one after the other, were badly wounded, so I was sent up to see where the shots came from, and putting up an old door as a breastwork I watched, and soon discovered one of the rebels in a brick sentry-box on the wall. He must have been a capital shot, but I had a better one, Burke, whom I called up, and telling him to keep a sharp look out, soon had the satisfaction of seeing the marksman tumble dead out of his box.

At dusk our servants came up with some dinner, which we discussed on the bridge, under cover of a sort of mosque with a large tree growing out of it. This protection was much needed, as we were constantly treated to shots, but failed to make out where they came from.

One of my servants, a tent-pitcher, had followed me all day, and he now produced a cloak and wallet, in which he always carried my provisions, without which I seldom left camp during the whole of our operations. The first two did for my bed and pillow, which I made on the lower step of the canal. The mosquitoes were here in clouds, as there was a little water in the canal; so the servant got a fan to keep them off till I fell asleep. He woke me several times, as the bullets frequently passed over our heads, though we were quite safe being so low down, but as they struck the wall just over our heads the poor fellow was in a blue funk.

About midnight he told me a fire had broken out close to us.

This we had heard would very likely prove a prelude to an attack, so I reported it to our Brigadier, who told me not to disturb the men, but went with me to find out where it was. After climbing several houses, we at last looked down on it, and found a large brick house burning fiercely; however, as it did not seem likely to spread, he told me to call him again if it got worse.

This was virtually putting me on duty for the rest of the night, so I got no more sleep. Next morning, after strengthening our different posts, and getting our men under cover, we had time to look about us; and it was curious to see the deserted houses in every direction, just as the people had left them with all their worldly goods—valuable carpets, rugs, mirrors, brass utensils, &c. &c.—but of course we could not examine them much, and, as we were kept continually on the alert, we were unable to leave our men.

I found one large house of brick, in which many rooms were piled with bundles of cinnamon. An officer of artillery came down with a howitzer and two mortars, which he planted on the gate and fired occasionally at the Lahore Gate and at the smoke of the rebel guns. Green's natives tried to make their commanding officer very comfortable by bringing him a bed with mosquito curtains, but whenever they became too noisy, or disregarded his orders, he used to rush at them and belabour their heads with his cane, which had a most excellent effect, as they were a rough lot.

The first night they rose in a panic (when some drunken sepoy rushed at us up the street), and commenced a wild fire, which when it was stopped, was found to have been fatal to one of their own officers, who was shot dead by Green's side.

A colonel of artillery visited us, I think, on the afternoon of the second day, and finding that his sub in the battery had driven the fuses of his shells carelessly, gave a lecture on laboratory practice to our men, much to their amusement.

We had hard work in burying the dead all round, for their bodies would have caused much sickness. This was usually done by knocking down the houses on the piles of corpses. Our officers began to run short of supplies, so on the third day I asked for and obtained leave to go into camp. It was a most interesting trip. I rode my little hill pony, and followed the line of our advance as far as the Cashmir Gate, meeting several parties of soldiers, English and native, evidently on looting excursions.

There was a strong guard at the gate, which passed everyone out, after searching them, but let no natives in, unless they were

officers' servants with passes from their masters. The road into camp, which for months had been deserted, except by pickets moving to and fro, was alive with men. The outposts were deserted like the camp. Regiments leaving their camps to take part in the assault had left a weak guard, composed of sickly men.

We ourselves left our first cornet-player behind, much to his disgust, he, of course, believing it was his regular tour for duty; but our adjutant managed it all, as we could not afford to lose his services with the band. The officer for the duty was selected as being so very young and thin that, as our commanding officer said, the wind of a round shot would have blown him to bits.

Our Brigadier was fretting like a caged lion, being incapacitated from taking any part in our present operations by a former wound. I was the first officer untouched he had seen from the front, so he got out his maps and made me describe all I had seen, and our present position.

I lastly visited the hospital, which was simply crammed, more than one half of the regiment being either wounded or sick. It was in beautiful order, and all the men spoke in the highest praise of the kindness and skill of Dr. Hare, our surgeon, to which I am able from personal experience to add my testimony. During the whole of the siege operations he lived in the hospital, never leaving, except for exercise or his meals at mess.

On returning to the city I found all quiet, but heard that our engineers were planning an attack on the Burn bastion by an advance through and over the houses. This bastion was afterwards found to be heavily armed, and quite commanding any advance by the road to the Lahore Gate.

Next morning we commenced our final advance, which before noon ended in the total expulsion of the rebels from the city and palace. The muster took place just before dawn. I have no idea as to the composition of the party, except that Green's Sikhs were with us. We were led by the Engineers through and over the tops of houses, up and down flights of steps in single file, debouching about daybreak at the entrance of the Burn bastion, which was void of defenders, but there were several heavy guns and plenty of ammunition. These completely commanded the Lahore Gate, and beyond it, where when it became light we saw hundreds of natives streaming out of the city. An artillery officer at once turned the guns on them, charged with a double dose of canister. The guns jumped, and the balls falling amongst the crowd dispersed it.

We presently saw the ubiquitous Hodson, at the head of a party of his horsemen, tearing along in the direction of the fugitives, and soon after one of his men reported that they had returned to the city through the Lahore Gate. As this was the gate we were going to hold, we made for it. I was sent back to report to our new Brigadier, who did not seem quite to understand why we had moved without his orders. On arriving at the gate, we first mounted a guard, and then went to get our men under cover, which we did in a large native house; but before we could get settled, I was ordered to occupy the Futtehpoore mosque at the end of the Chandee Choke, a broad street with avenues of trees running direct to the palace. The mosque was in a walled enclosure, with huts all round, in which we found many wounded sepoys. I made the necessary preparations for defending this post.

The gate porch made a good guard-room, outside of which was a trough for feeding cattle, about three feet high; this, with a little labour, we soon made into an excellent breastwork.

The street was quite deserted, except by an occasional prowling native; but I had scarcely finished all my arrangements, when we heard a tremendous clatter and shouting, and saw a dozen or so cavalry soldiers charging straight up the street towards us. We stood to our arms, and getting behind our breastwork received them with a volley, which killed or dismounted every man. Those who were untouched defended themselves like madmen, and were with difficulty dispatched. They had all primed themselves with some drug or spirit before starting on their mad gallop. Their horses which were not disabled galloped off, with one exception, which the men captured and brought to me, and which I afterwards bought of the prize agents. It proved to be a two-year-old colt, showing how very hard up the rebels must have been to get remounts.

On most of the bodies were found quantities of arms of every description, and one of my men brought me a beautiful, silver-mounted rapier, with ivory hilt. At about 2 P.M., a party of artillery, with guns and escort, under an artillery major, marched down the street. The major told me he was going to take the Jumna Musjid first and then the palace, asking me to send some of my men to occupy some houses down the street in case of his meeting with any opposition, and wanting help. This I did, but soon learnt that he had done all he wanted without meeting any of the rebels, finding the palace and the Selimghur empty.

The whole city was now deserted by all rebels in arms, but

there were hundreds of wounded sepoy and old women in the houses near the main thoroughfares. The former were taken outside the walls into temporary hospitals, the latter allowed to follow their friends who had previously moved out. We remained at this post for thirty-six hours, when word was sent me that we were to be relieved and rejoin the regiment.

With the relief came a meal for my men, so making over the duties to the relieving officer, and telling the men to take their meal, I and my subaltern went for a walk down the street. Most of the shops had been broken open and gutted. Close to the entrance of the Queen's Garden was a lapidary's shop. Here we picked up a few agates, and saw a man, apparently a washerman, come from one of the houses with the usual bundle of his class, in which they carry dirty clothes. Thinking it rather a curious place for such a man to be in, I stopped him to search his bundle. Immediately half a dozen of our sepoy made their appearance, and on opening the bundle it was found to be full of plunder, including a large bag of coin. This I took telling the man that I claimed it for the prize agents, but two of them snatched it from me, and in the struggle the bag was torn, and all the money flew about. I tried to make signals to my men, but they were too far off, and as one of the sepoy brought down his musket in a threatening manner, I and my subaltern, being quite unarmed, were obliged to make off.

As soon as we could make my men hear and see us, about a dozen came up, and we started back to the place, but the robbers were gone. There must have been an immense quantity of plunder secured during the next few days by both European and Native soldiery. I rejoined my regiment, and found it very nicely settled in the house before mentioned. The mess opened, and each officer had a small room, splendidly set up with beautiful Mirzapoor carpets and rugs. Our only duty was to guard the Lahore Gate, which was rather fun, as we had to overhaul all who wanted to get out of the city, and in doing so discovered many rebels in disguise, and took quantities of plunder which was being smuggled out, and deposited it with the prize agents.

On the afternoon of the first day after my return, a captain's guard was wanted by the civilians. I was sent, and in the garden of a house called "the Begum's koti," found the Commissioner and Hodson, who made over to my charge the person of the "Great Moghul." It was a great responsibility, as the place wherein I was to keep him was a small garden with plenty of

underwood, where desperate men could lay concealed close to my sentries.

Although the city was virtually in our hands, yet there were still hundreds of men prowling about its deserted streets, who, if they became aware of the Emperor's capture, would be sure to try a rescue.

I asked the Commissioner for orders, and was told that my sentries were never to lose sight of their prisoner, and in the event of an attempt at a rescue they were to make sure that he did not escape. I now, for the first time, saw the man of whom I had latterly heard so much. He was a little spare fellow with a Jewish face, rather good eyes, a thin grey beard, evidently very decrepit, and dressed in very dirty white clothes. He was seated on a small couch leaning against pillows. Some three or four dirty women attended on him, and kept him well supplied with chewing materials, which caused him to keep one of them who held a spittoon actively employed. His bed was in the centre of a shallow, dry tank, about six or eight yards square, at the edge of which we posted two sentries, to whom I myself gave orders about the safe custody of the prisoner, and satisfied myself that they understood them. I then inspected the garden, finding a high wall all round, with no apparent entrance; but resolute men could have got into the garden by risking a jump from the adjacent houses. I then went over the Begum's house, which was in very good preservation, some rooms having the walls and furniture covered with clean white cloth. There were also some very handsome native carriages in the courtyard. I was also informed by some natives belonging to the house that there was a great deal of valuable plate and jewels concealed in some of the cellars; so I posted one of my men with orders to see that no bundles or boxes were carried out. On Hodson coming out from an interview with the prisoner, or rather his moonshee, I told him what I had heard, and he said he would inform the prize agents.

The next morning the civil authorities took charge of the prisoner, and the guard was ordered to rejoin the regiment. We heard afterwards that on Hodson informing the President of the Prize Committee of the supposed treasure in the house, he went to the General asking for a prize guard. This was refused, and he declined further responsibility, but the sequel proved that his action had been correct.

(To be continued.)

Out of the Beaten Track.

BY MAJOR-GENERAL R. REVELEY MITFORD.

CENTRAL INDIA.



SOME years ago fate and the "relief" sent me to the parched and arid station of Jhansi, in Bundelcund, then a little-known corner of the world, even to old Indians, but now rapidly creeping into notice as the centre of a new and extensive railway-system which will open up the vast tracts of Central India, hitherto so "out of the beaten track" as to be virtually a *terra incognita* to all but the few whom duty or sport led there.

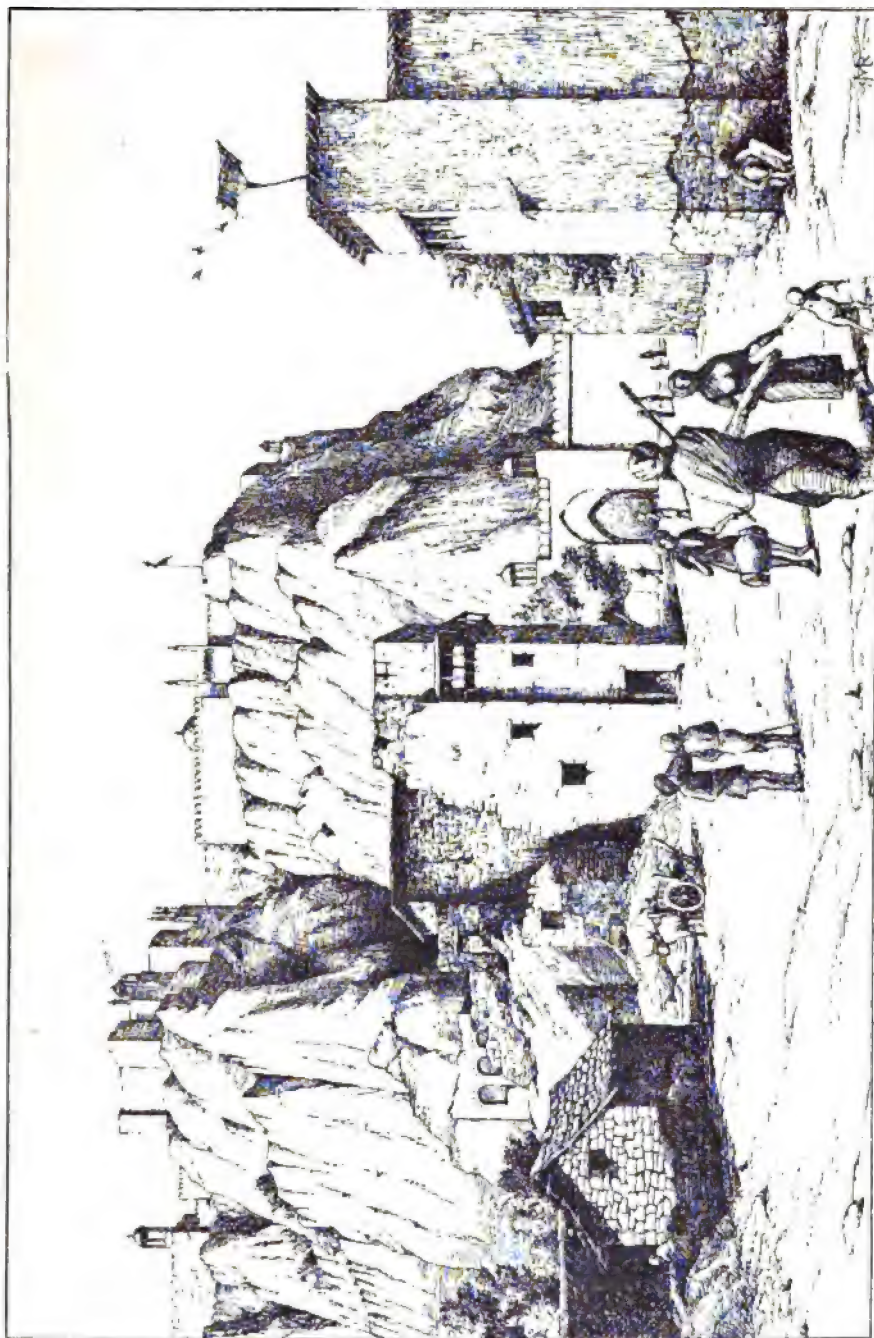
Taking Agra as a starting point, the traveller can now go by train as far as Gwalior. Midway he passes the town of Dholpoor, the capital of an insignificant native state ruled by a petty chief under British surveillance. He then crosses the river Chumbul, a tributary of the Jumna, and soon afterwards notices a great mass of rock on his right crowned by parapets and battlements, walls and towers; this is Gwalior Fort, the "Gibraltar of India." The huge red sandstone hill on which the fort is built is a specimen of the peculiar rock formations so frequently met with in Central India; rising almost perpendicularly from the sandy plain to a height of two hundred feet, its summit is as level as a billiard-table, in fact, all these strange hills look exactly like the foundations of lofty isolated peaks from which the upper portions have been shorn by the mighty sweep of a Titanic scythe. Many of these natural plateaux are crowned by the strongholds of the old Mahratta and Pindâri robber-chiefs, just as the rocks on the banks of the Rhine were utilized for the same purpose. The parallel might be carried much further between fierce German barons and plundering native chiefs, lanz-knechts and sowars, rich merchants travelling homewards from the marts of Westphalia or Lorraine, and wealthy bunniahs driving their ox-carts back from Agra or Secundrabad.

Gwalior is by far the most extensive of the rock-seated forts,

its fortifications enclosing a space on the level hill-top a mile in length, and from two to six hundred yards in breadth. Within this area rise palaces, tombs, and temples, intermixed with European barracks, for a battery of garrison artillery and four companies of British infantry held the fort from the time of the Mutiny until, in 1886, our Government gladdened the heart of the dying Scindiah by giving him back the fortress he so fondly coveted—not only on its own account as the historical stronghold of the rulers of Gwalior, but also because it completely commands and overlooks the city, the “Lashkar” or cantonments of the Maharaja’s army, and the modern palaces and harem, all of which are built on the plain at the foot of the rock. Although his standard, a gaudy red and yellow flag surmounted by a large bunch of peacock’s feathers, had always been allowed to fly from the main bastion, the Maharaja could not enter the fort without special permission from the British authorities, and his troops were never admitted within the walls.

At the same time that the fort was given over we also presented the Maharaja (for a consideration) with the station of Morar, lying some three miles from Gwalior, and thus rid ourselves of one of the hottest, dullest, and most unhealthy cantonments in India. It had but one redeeming point, a very pretty “mall,” or main road through the station; this was quite an oasis, for the surrounding country is dry and stony, burnt up and dusty, the very abomination of desolation.

On the west side of Gwalior rock immense figures of Hindoo deities have been hewn out of the hill-side, with which they are only connected by broad shelves left in the region of the waist to support the great images, some of which are about sixty feet high. The old Jain temples in the fort are the object of much solicitude to our Government, which has spent large sums on their restoration and preservation. Gwalior is a great place for carving in stone, many of the balconies and arches in the city and bazaars are handsomely decorated with arabesques and scrolls in red or grey stone; the great archway which ornamented the “Col-Inderies,” and is now at South Kensington, is a good specimen of this art, and I can personally vouch for its being genuine, as I was at Morar while it was being made, and frequently went over to Gwalior to watch the workmen, seated either in the open air or under rough straw thatches, chipping out the pattern with their coarse chisels and mallets, never measuring, but trusting entirely to the eye.



MAIN GATE, GWALIOR FORT.

The late Maharaja was allowed by Government to maintain a standing army of 36 guns, 6,000 cavalry and 5,000 infantry,* but as he passed *all* his subjects (who did not bribe the officials) through the ranks he could have placed a much stronger force in the field. At one time he was a keen soldier, a good drill, and a most ambitious man, but for some years previous to his death he gave way to dissipation and paid little attention either to his army or his State.

The natives fondly imagine Gwalior Fort to be impregnable, and so it would be but for the advance in modern artillery. A hill lies to the south-west, at 8,000 yards distance, from which the fire of a few siege-guns would soon sweep the plateau clear of both defences and defenders.

Scindiah's chief palace is a group of whitewashed buildings called "Phool Bâgh" (the "Flower Garden"), lying about half a mile from the fort. In front of the façade stretches a dusty plain used by the Maharaja's troops as a parade-ground, and behind the palace is a large garden enclosed in high walls, laid out in walks, parterres, and miniature lakes, and adorned with fountains and statues. In the midst stands a spacious marble pavilion where the European residents of Morar used sometimes to be entertained, and close by is one of the favourite native practical jokes—a loose slab in the pavement, which sets a number of jets of water playing on the unwary visitor who treads on it.

From Gwalior an unmetalled road leads to Jhansi, sixty-nine miles distant. Shortly after leaving the city this road passes through a picturesque rocky defile, called the Antree Pass, and about half way to Jhansi it crosses the Sendh river, a serious obstacle to travellers during the rainy season, as the bridge of boats which usually joins the two banks is then removed, and passengers are obliged to cross in broad, flat-bottomed punts, which are often swept many hundred yards below the landing-place by the turbid stream. The little State of Duttiah lies on the south bank.

I had a queer adventure once near here while marching with a squadron of my regiment to Jhansi. I started for a walk with my wife one afternoon, intending to explore some picturesque ruined temples on a ridge apparently about a mile from camp. They proved to be much farther, and after satisfying our curiosity we left to return. Meanwhile the sun had set, and darkness came on with the rapidity usual in those almost tropical latitudes; there

* *Aitchison's Treaties.*



JHANSI FORT, FROM RETRIBUTION HILL.

was no path, and we soon lost our bearings. A small fire showed where some natives were cooking their evening meal, so we made our way to it, and asked them to direct us back to the camp; they were very sulky and unwilling to assist, and we were making up our minds to continue our weary wanderings in the dark when, to my great relief, I heard the well-known regimental trumpet-call, followed by that known to Tommy Atkins as "Where are you now?" I shouted in reply, and in a few minutes we were surrounded by an excited group of my men, headed by a native officer, who was full of congratulations on our safety, mixed with reproaches for having gone out so late without an escort. It appeared that the ruins we had visited were notorious as the resort of dacoits* and other bad characters, and when it became known in camp that we had gone there unattended, and had not returned by sun-down, the men had turned out in different parties under their native officers and started off in search of us. I cannot say whether there was any real danger, but we were very glad to get back to camp and a very late dinner, and I was delighted at this proof of affectionate interest on the part of my men, as I had not been long in the regiment, and had not yet learnt that there are no more attached and faithful henchmen than the Játs when once their confidence is gained.

Jhansi lies in the centre of a tract of low stony hills, hot, dry, and barren, but very picturesque. During the Mutiny in 1857 it was the scene of one of those fearful acts of treachery so frequently perpetrated by the perjured sepoys, when not only men, but women and children too, paid with their blood for the crime of Christianity and the folly of trust. When Sir Hugh Rose recaptured the fort and station, after a severe struggle with the mutineers led by that female fiend, the Râni of Jhansi, he had all those who were condemned by the Commission executed on a hill in sight of the fort, because at the foot of this hill the unfortunate officers and civilians, with their wives and children, had been murdered a few months previously. The spot was always called "Retribution Hill" from this circumstance.

Five miles south of Jhansi, on the banks of the river Betwa, lie

* The following paragraph shows that dacoits are by no means extinct in this part of India:—"There has been a pitched battle at a place called Salliya, between one of the gangs of dacoits which infest the Gwalior territory and the Durbar troops. The latter lost a sepoy killed, and two dangerously wounded, besides minor casualties; but they killed the two leaders of the outlaws and five of their followers."—*Allen's Indian Mail*, April 16, 1888.

the ruins of the ancient city of Oorcha, at one time the capital of the Tehree State. Long streets, wide squares, lofty buildings, and a many-bastioned citadel attest the former grandeur of the town, which was almost completely depopulated many years ago by an outbreak of sickness very like the plague, and has never since been inhabited. The surrounding country is now overgrown with bush jungle, amidst which lie scattered many grand ruins, but the most stately and interesting records of past magnificence are the ranges of graceful spires with slightly curved outlines which mark the resting-places of the ancient rulers, or rather of their ashes, and which are still looked upon as holy shrines by the Hindoos of the district. Most of these buildings take the same form, a square tower, from which rises a lofty spire; reddish-grey sandstone is the material used in their construction, but there is one marked exception, both in material and design; on the bank of the stream stands a solid platform built of great blocks of stone, and on this foundation a lofty square building of yellow stone has been raised, with a tower at each angle, and arches and galleries between; the external roof is flat, but inside it is an immensely strong dome, evidently intended to support a spire in proportion to the rest of the building, but only the lower, cylindrical, fluted portion of this spire is to be seen. Whether the dome was found too weak to bear the vast superincumbent weight, or the architect died before his work was concluded, I cannot tell; probably the latter, as this is known to be the reason why so many of the monuments round Agra and Delhi were never completed. One of the buildings is called the "Painted Temple," because the interior is decorated with native wall-paintings, some curious, some ridiculous, and some offensively indecent. One very quaint fresco represents the siege of Bhurtpore from a native point of view; the walls of the beleaguered city are manned by ferocious Hindoo warriors a great deal bigger than the towers they defend; they are pouring a destructive fire on the red-coated British assailants, whose gory heads are represented flying in the air, their bodies falling stiffly in every direction, and the cannon-balls passing gaily between. One gallant native horseman has spitted five Englishmen at once on his lance, like larks, and another has cloven a red-coated officer not only "through helm and shield" but through his whole body and that of his horse as well, the halves of man and animal falling apart before the dusky warrior's doughty blow.

The Betwa is well stocked with *mahseer*, or Indian salmon,



TOMBS OF THE KINGS, CONCHO.

though they do not run very large, a 10-pounder being considered a fair sized fish ; the small tributary streams are full of trout, which give good sport to those who do not mind facing a burning April sun.

The province of Bundelcund, in which Jhansi lies, suffers terribly from drought. Thousands of the inhabitants died during the famine of 1868-69, in spite of the greatest exertions on the part of the authorities. This ever-recurring scarcity of water led the old native rulers, in the palmy days before the Mahratta conquest, to construct artificial lakes or tanks—wherever the formation of the country rendered this possible—by building great masonry dams across the course of streams flowing between hills. The country is covered with the remains of these gigantic undertakings, and a few are still in use ; of these the most noticeable is the Burwa Saugur (*saugur* is the local name for these tanks). About twelve miles from Jhansi, and on the other side of the Betwa, is a small valley through which meanders a stream at a considerably higher level than the river ; across the mouth of the valley a stone embankment has been built, joining two rocky hills and damming the stream, which spreads out into a lake covering four square miles, and irrigating nearly ten times that extent of what would otherwise be arid jungle, but is now productive land. The outer face of the embankment is revetted with huge blocks of stone, and the inner surface is covered with countless double flights of steps leading down to the water. A parapet and path run along the top of the bank, and one of the rocky hills is crowned by a ruined castle with bastion and tower, arch and pillar, water-gate and dungeon, the very dwelling for a robber chief. Two or three rooms in this ancient stronghold are kept in repair, and it was a most delightful change from Jhansi to come and spend a few days here in full view of the placid lake and green valley, undisturbed by dust, drums or duty.

This castle commands the high road leading from Jhansi and Oorcha to Saugur, and as this was formerly the main route for all the traffic of the district, there can be little doubt that the lawless miscreants who held the keep made a very handsome income by levying blackmail on all travellers unprovided with sufficient escort. Nor were these robber chiefs the only enemies against whom precautions had to be taken by wayfarers ; long after they had been destroyed and their strongholds had begun to fall into ruin, wandering bands of ruffians kept the country in a perpetual state of alarm by their misdeeds. These rascals were



BURYA RADGOL.

divided into two distinct classes; "dacoits," who were house-breakers and shedders of blood, and banded together in considerable numbers, did not even hesitate to attack large villages, slaying all who ventured to oppose them, and carrying off women, cattle, and goods to their retreats in the depths of the jungle; and "thugs," the most crafty, persevering, and deadly of highwaymen. These murderous ruffians were votaries of the goddess Kâli, or Doorga, who was supposed to be propitiated by human sacrifice only, and under the strange condition that *no blood should be spilt*, hence the name by which the thugs are designated in old government orders referring to them, "Stranglers."



THUGS WAITING FOR THE SIGNAL.

They generally went to work in parties of three or four, seldom more than half a dozen, and their *modus operandi* was to go into one of the large towns and disperse amongst the bazaars and serais, or hostels, picking up information regarding the different parties of merchants or other wealthy travellers. Having settled on the most promising prey, one or two of the thugs would scrape acquaintance with the party, and, under pretence of mutual safeguard, propose to join them on the journey; if the insidious offer were accepted it made the job all the more easy, but if not, sufficient information was always obtained regarding route, time of starting, and general proceedings of the intended victims.

Everything having been settled, the doomed travellers commence

their journey, and all goes well for a time, but at some point of the road—invariably far from any of the widely scattered villages—during the noonday halt, while the bullocks, unyoked from the “rutt,” or two-wheeled vehicle with domed roof of quilted scarlet cloth, are snatching their well-earned meal of chopped millet stalks, and the merchant and his driver with their treacherous fellow-travellers are sitting smoking under the scanty shade of the prickly mimosa, while one of the traitors watches the road from a neighbouring bank, two ruffians stripped to the waist silently creep on bare feet behind the unsuspecting victims, each holding the fatal “roomâl,” or handkerchief. The hookah is passed for the last time, the leader of the band gives the signal by suddenly exclaiming “Jâi Kâli!”* the startled victims look up, but before they can utter cry of horror or strike blow in defence the deadly kerchief encircles their necks, the knuckles of the executioners are deftly driven into their spines, powerful knees press on their shoulders, and in a second they fall prone—strangled, broken-necked corpses. A few more seconds and their bodies are stripped by practised hands, the “rutt” is emptied of its contents, the corpses put into it and driven far into the jungle, where all is left. The wretched bullocks—which the Hindoo murderers dare not kill—soon die of starvation, if they are not more speedily and mercifully despatched by wild animals, and in a very short time vultures, panthers and jackals render recognition of the remains impossible, even supposing anyone should find them, a most improbable contingency.

Sometimes the attack had to be made in more frequented regions; in this case the bodies were buried—hastily but effectually—and always when possible in or near a ruined building, whence quantities of fallen stones could be obtained to pile over the graves, and delay the jackals in their work of exhumation.

Another of the robber-castles, called Dinâroo, overhangs the road to Seepree, a village (once an important town) lying to the west of Jhansi. Here also a great mass of rock, rising above an artificial lake, forms the foundation for the frowning walls and crenelated battlements, but in this instance it is marked by a strange peculiarity—from the midst of the reddish grey sandstone rises a wedge-shaped block of white marble, and the same material reappears on the face of the cliff overhanging the lake; here it is surmounted by a pinnacle which has been hewn into a rough image

* “Hail Kâli!” the ordinary invocation to the goddess.

of Shiva the Destroyer, the third and most dreaded personage in the Hindoo trinity. In front of this idol is an altar (also a block of the living marble), the summit of which slopes out and down towards the water lying far below. Local tradition, which, in India as elsewhere, so frequently supplies the place of history, narrates that prisoners who fell into the clutches of the chieftain and could not procure ransom were taken to this spot one by one, placed erect on the altar, and told to do reverence to the idol. Fancy the scene—the trembling victims, doubtful of their fate, yet dreading the worst—the grim robbers, fiendishly rejoicing in a deed of blood, and as little accessible to pity as the great marble

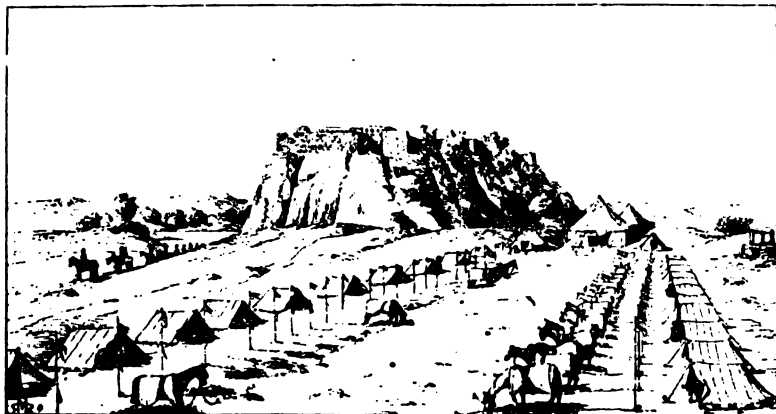


DINAROO.

image which rises above the group. It stares with sightless eyes at the blazing sun and the placid lake, its waters unbroken by the slightest ripple, and the widespread landscape of rock and jungle, through which winds a narrow ribbon of sand, the road which leads to safety—the road which some there shall never tread again. Hark! the leader gives the command, "Bow to great Shiva!" the miserable prisoner raises his hands and bends his body in adoration, and that movement seals his fate—his feet slip on the treacherous surface of the polished marble; he loses his balance; a scream, a plunge of over two hundred feet through the air, a splash in the dark waters of the lake, and all is over! But lo, those waters are

died with blood, and under the surface horrid shapes can be dimly seen hurrying to the spot. The wretched victim is impaled on sharp bamboo stakes planted in the bottom of the lake, and the alligators are hastening to their banquet!

Game used to be abundant in the low forest jungle which covers the surrounding country, and when I marched through it in 1871 with a detachment of my regiment, the native troopers shot numbers of spotted deer and pig, while the small streams running into the Betwa were full of trout. There were very few villages in the district, the inhabitants preferring to congregate in the towns, where their numbers were a check upon the attacks of the marauding and murdering dacoits, whose formidable gangs were the terror



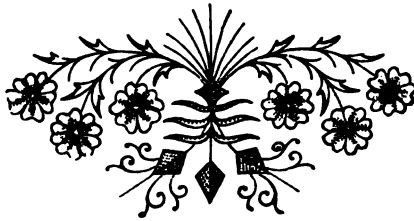
CAMP AT KURARA.

of small settlements, which they ruthlessly "looted," and the dread of the local police, unless the latter were, as frequently happened, in league with the freebooters.

A convincing proof of the former opulence and prosperity of this now deserted district is given by the existence of another of these castles on the same road, at about ten miles' distance from Dinároo. This ruin, called Kurâra, covers a more extensive plateau than the one I have just described, and has the same advantages of commanding the main road and the tank, where travellers are bound to water their thirsty cattle. At the time of my visit the fort was said to be garrisoned by a pair of panthers, but in spite of most diligent search we were never able to catch a glimpse of them, though we penetrated many dark winding passages—half rock, half masonry—leading into subterranean chambers, where the former

masters of the castle could stable their horses and house their cattle in time of siege, or confine prisoners from whom a ransom might be expected.

Many remains of artificial reservoirs and irrigation works are met with by the traveller, or still more frequently by the sportsman wandering through the now pathless jungle, showing how different at one time were the circumstances of the district. Let us hope that with a change of rulers may come a change of condition, and that this once flourishing and thickly inhabited country may recover from the desolating effects of Mahratta misrule and British "non-interference"; that the people may be raised from their present condition of crushing poverty and abject fear, and that green fields and happy villages may replace barren jungle and frowning ruins.



The Galop of Insign Steel.

(From the Swedish of J. L. RUNEBERG.)



IX.

THE COTTAGE GIRL.

THE sun had set, and evening fell, the placid summer twilight ;
His vanished splendour bathed the land in tender hues of violet ;
A troop of peasants, worn with toil, pressed onward proud and
gay,
Their work was o'er, their harvest reaped, they homeward went
their way.

Their work was o'er, the harvest reaped, a costly one 'twas fated ;
A band of foemen, fierce and strong, they had exterminated.
They sallied forth when first the sun in early lustre beamed ;
When all in triumph ended was, his dying radiance streamed.

Hard by the field which bitter strife had lately devastated,
A homestead stood beside the track, but scarcely cultivated ;
And on the cottage's low steps a maiden sat and viewed
How joyfully the peasant troop their homeward course pursued.

She seemed as one who sought a face, but who could tell her
musing ?
Her cheeks they glowed with warmer tints than were of sunset's
choosing.
She sat so fondly tranquil, in expectancy so sweet,
That had she listened to her heart she might have heard it beat.

The maiden watched the progress of the troop in long succession ;
To every man, to every rank she seemed to look a question :
A question timid and reserved, a question unexpressed,
More secret than the sigh itself which stole up from her breast.

But when the crowd had passed away, the last the first pursuing,
The poor girl's fortitude and strength broke down beyond renew-
ing ;
Her head supported by her hand, all silently she grieved,
Until big tears with grateful flow her burning cheeks relieved.

" Why weepest thou ? Take courage, hope is still for us remaining.
O daughter, hear thy mother's voice and idly cease complaining ;
The man thine eyes were seeking for and searching failed to see,
He is alive, he thought of us, and lives for love and thee.

" He thought of thee, my counsel followed not to be foolhardy ;
My last farewell to him it was when marching with the party ;
Although he was compelled to go, his mind was not for fight,
I knew he did not wish to part from us and earth's delight."

The maiden looked in terror up, from mournful dreams awaking,
It seemed as if with some dread thought her widowed heart was
quaking ;
She paused an instant, cast her eyes to where the fight had been,
Then crept away and in the twilight soon no more was seen.

An hour passed by, another one, already night was gaining.
The clouds above like silver shone, below them darkness reigning,
"She yet delays ; O daughter, come, thy sorrow is in vain ;
To-morrow ere the sun ascends he will be here again."

With noiseless step the daughter came, her mother dear approaching,
This time no flood of tears upon her handsome eyes encroaching ;
Her outstretched hand, however, was as icy as the gale,
And, whiter than the clouds above, her cheeks were wan and pale.

"Prepare my grave, O mother dear, my day of life is ended ;
Who won my heart hath fled with shame where Finlanders contended.
He thought of me and of himself, by your advice was swayed,
And hath his countrymen's best hopes and Fatherland betrayed.

"When these returned, and he came not, how bitterly I wept him !
I thought that death among the slain upon the field had kept him.
I sorrowed, but my grief was sweet, untinctured then with gall,
I wished to live a thousand years and mourn him through them all.

"O mother, I explored the field till darkness had descended,
But nowhere could my darling find among the slain extended.
To dwell in this deceitful world no longer I desire,
I found him not among the dead and therefore must expire."

H. S.



The Canadian Campaign of Montgomery and Arnold in the Winter of 1775.

By F. DIXON.



HERE is an old saying that the occasion brings forth the man ; and, indeed, it is a true saying, inasmuch as, until the season is ripe, the man must of necessity stand unrevealed. Suddenly the crisis calls for him, and in a moment he steps into his place, and lo ! all people acknowledge him. Some three centuries and a half ago, when Tetzel, the Dominican monk, marched into the market-place of Wittenberg, and, all in the way of business, unpacked his wares and offered to such as chose to buy the right to sin, he little guessed that he was putting the match to the powder barrel of the Reformation.

The good people of Wittenberg bought these "Indulgences," and going to confession in the castle church, whispered to the father that they had no longer need of absolution from him, seeing they already held the Pope's pardon safe in their pockets. The brave monk in the confessional proved, however, to have his own ideas on the subject ; and, having written them down in very vigorous German, straightway nailed them to the door of his church. "That Luther," laughed Pope Leo, when they brought him news of the act, "has a fine genius." But the great Medici lived long enough to see in the once obscure Wittenberg Professor, the pioneer of the Reformation. About a century later, the burghesses of Huntingdon, looking about for a representative to defend their privileges against the waxing pretensions of the Crown, cast their votes for one Oliver Cromwell of St. Ives. And he, being duly elected, did first, in his "plain cloth suit," on the floor of the Commons House of Parliament, and later, in steel breast-plate and morion, in many a stubborn fight, make them

good very effectively against encroachment. The hand of the great clock of the world sweeps round yet another hundred years, and then, in the hour of America's need, a plain Virginia gentleman steps forth from his retirement, and George Guelph is confronted by George Washington. The old saying is, indeed, never truer than of the fight for American independence. So long as "farmer George" was content with showing himself "a king" in England alone, there was no hurry for the American colonists to give proof of their genius for the higher affairs of state. But, from the moment when he determined upon being "a king," beyond the Atlantic likewise, and got ready his "four regiments" to bring Massachusetts to its senses, tribunes, captains, and statesmen, crowded to the fore. The military manoeuvres which followed are perhaps less well known on this side of the Atlantic than in America, where, indeed, the name of every captain has become a household word in the mouths of the people, as is perfectly natural.

General Gage and his red-coats lay in Boston. Eighteen miles off, in the little village of Concord, the Americans stored their powder. There was as yet no absolute state of war, only that tension of national feeling which a single hasty word may cause to snap. Gage determined to seize the Concord stores by a surprise. Eight hundred men, under Major Pitcairn, were ordered for the service. It was the 18th of April. Shortly before midnight the British troops were mustered, without beat of drum, and marched down to their boats. Boston was asleep. But as the tramp of the soldiers echoed through the silent streets, far up over their heads, in the belfry of the old North Church, glimmered the signal of their departure. On the Charlestown shore they disembarked and plunged forward into the night. But Paul Revere had been before them; the echo of his horse's hoofs had barely died out upon the road along which they advanced, when from all sides came the clamour of the bells and the crack of the rifle which told them that the country was up. Day was dawning when the British marched down on Lexington, a dull chill morning, and across Concord Bridge some seventy militiamen lined the bank of the narrow stream. Pitcairn called upon them to disperse, but, instead of obeying, they stood and stared at the royal troops. Suddenly, without warning, a rifle shot rang out sharp and clear in the morning air. Who fired it will never be known; like the responsibility for the Balaclava charge, it will go down amongst the many mysteries of history. The Americans declared it came

from the English ; on the other hand, Pitcairn declared that he himself saw the smoke curling from a muzzle on the Concord bank. Be that as it may, it was the first shot of the Civil War ; henceforth there was to be firing enough and to spare. In a moment the word was given, and the English poured their steady fire across the stream. Eighteen of the Americans fell, and then the rest turned and fled. Pitcairn marched his men over Concord Bridge, and completed his mission. Then he turned to go home. But he was not allowed to go in peace. On either side of the road to Boston stretched the dense forests of New England, and into them all day, rifle upon shoulder, the Middlesex farmers had been hurrying. As the English came in sight, a galling fire was opened from behind every tree, a fire which it was impossible to return. The men behaved splendidly. There was no panic ; nothing was heard save the reports of the rifles hidden amongst the trees, and the voices of the English officers calling upon their men to close up the ranks, as the dead fell down in the road. It was sunset when they came in sight of Boston. That night, when the roll was called, three hundred men failed to answer their names.

The last shot had been fired at the retreating English as they drew clear of the forests, and passed out into the open country before Boston. The avengers did not leave the cover of the trees that night, but within a few days 20,000 Americans, almost as ill accoutred as the tatterdemalions whom Sir John swore he was ashamed to lead through Coventry, lay along the basis of the two isthmuses which connect Boston with the mainland. For two mortal months Gage hung lazily and contemptuously about the Boston streets. Ships and men came out to him from England, still he made no move. At last, about the middle of June, he announced his intention of sweeping away the rabble in his front. On the 18th, it was said he would move out and occupy Bunker's Hill. Over the water, in his camp on Cambridge Common, old Israel Putnam, fresh from the plough, heard the whisper and was swift to act upon it. The night of the 16th closed in. As soon as it was dark, 1,200 Americans, armed with spade and rifle, stole out along the isthmus, under the very guns of the English fleet, and climbed to the summit of the hill. Lustily, yet silent, through the hours of the short summer's night they plied the spade, and when day dawned, Bunker's Hill was crowned by an American fort. This was too much even for Gage. Orders were at once given to clear away the impudent rebels, and secure the heights. As the boats pushed off from the Boston land-

ing place, the citizens swarmed out upon the surrounding heights, or clambered to the house-tops and belfries to watch the fight.

It was noon when the keels of the English flotilla grated upon the Charlestown isthmus. The hot June sun blazed straight down from overhead, and the men, as they sprang laughingly ashore, accoutred in heavy marching order, and burdened with three days' provisions, were glad enough to lie down and rest. Before them, clothed in its long waving grass, the side of Bunker's Hill shelved gently up. That night their orders were to bivouac on the top. At length all was ready. The men-of-war in the bay had crept close in shore with open ports. The last can of grog had been drained. The men rose to their feet. The bugles sounded the assault, and with a cheer the troops dashed up the hill. High above their heads, with but fifteen balls a man, and those melted



WASHINGTON.

from the organ pipes of Cambridge Church, the American farmers waited, undismayed. With the instinct of a veteran, old Israel Putnam gave the word—"wait till you see the white of their eyes, and aim low." As the red-coats breasted the earthworks the colonists gave their fire. The leading files were literally shorn away, and the attack rolled slowly back. Half-way down the hill, the English officers rallied their men and led them once more to the assault. For a second time the colonists met them with a

point-blank volley, and for a second time the attacking columns wavered. It was in vain their officers rushed to the front, Cambridge organ was pealing forth a terrible anthem, a veritable "Dead March," and they were mown down like grass. Suddenly the ranks broke, and followed by thundering shouts of "Are Yankees cowards?" our men fled down the hill. There was no laughing now. At the bottom overcoats and haversacks were cast aside, and the word was passed grimly round to do it this time with the bayonet. The afternoon was wearing on, the sun had lost something of its strength, when, amidst intense excitement, the watchers on the Boston house-tops saw the flash

of the bayonets as the English battalions plunged upwards through the long grass for the third time. There was at first no firing as they climbed up, over the dead and dying, to the last assault. Then, suddenly, as they reached the summit, Cambridge organ thundered out its last chord and was silent. The American ammunition had given in, and the English swarmed in over the breastworks, bayoneting right and left. For a minute or two the Yankee farmers stood at bay, and with clubbed muskets and showers of stones strove to hurl the red-coats back. But they, maddened by their late repulses, were in grim earnest now and not to be denied. The day was lost. At last the farmers ran, and as they fled across the neck to Cambridge, the English men-of-war ran out their guns, and helped to complete the rout. That night the English bivouacked on Bunker Hill, but of the 2,000 men who had landed in the noonday at its foot 1,100 were lying in the blood-stained, trampled grass which clothed its slope. It was a victory certainly, but it was a victory only a degree less disastrous than defeat. "Thank God!" said Washington, when they told him of the fight, "the liberties of the country are safe."

Bunker Hill had taught the scoffers pretty effectually that Yankees were not cowards. But it had done more than this, it had shown that the raw American militia, badly armed and still more miserably equipped, could hold its own, behind earthworks at any rate, against the disciplined and perfectly found troops of the King. Indeed, had Cambridge church only possessed a larger organ, Bunker Hill might well have proved even less satisfactory than Concord Bridge. That was what Washington meant when he exclaimed that the country was safe. And Washington, as he drew the beleaguering lines more and more tightly round Boston, felt himself strong enough to assume the offensive elsewhere.

A few weeks previously, Ethan Allen, with Benedict Arnold at his shoulder, had rushed in the grey twilight, at the head of some few score men, through the gateway of the great fortress of Ticonderoga, and called upon the Governor, in the name of the "Great Jehovah and the Continental Congress," to surrender. He, poor man, being caught with his garrison in bed, had no option but to do so. And Washington now determined upon making the new acquisition a base of operations for an invasion of Canada. With this object a little army of 1,200 men was collected at Ticonderoga; and then, in July, Philip Schuyler, the newly-elected major-general of New York, a man of noble and generous nature, but infirm in body and of indolent temperament, came to command it. Under such a

chief, it may be surmised, matters did not progress very rapidly. Boats, indeed, were built, negotiations opened with the Indians, and an expedition sent into Canada to collect information ; but for all that, when August came it found the army still safe behind the bastions of Ticonderoga, and the general writing dejectedly to Congress to know if he should proceed. Suddenly all this was changed by a single new-comer. On the 17th of August Richard Montgomery came to Ticonderoga, and on the same day Schuyler left for Saratoga to complete his negotiations with the Indians.

It was not the first time Montgomery had seen Ticonderoga. He had been under its rampart with his regiment in '57 ; he came now to draw his sword against his old friends and countrymen. Then was seen what one determined man can accomplish. Within a week all was ready. And when, on the 26th, a despatch came in from Washington urging an immediate advance, Montgomery launched his boats and wrote to Schuyler that he had started for St. John's.

The moment for the descent on Canada was well chosen ; if it was ever to be possible for the rebel troops to force their way up into the eagle's nest over the St. Lawrence, now was the time. To defend the threatened province, Governor Carleton had but a thousand regulars, and of these 300 were in garrison at St. John's. The French nobility, it is true, stood loyally by the King ; but the French peasantry showed every inclination to take the other side, and, despite the appeals of their clergy, doggedly refused to take up arms against the invaders. The American troops, on the other hand, were very far from being all they might. "The New Englanders," wrote Montgomery, "are the worst stuff imaginable for soldiers. They are home-sick ; their regiments are melted away ; and yet not a man dead of any distemper. There is such an equality among them that the officers have no authority, and there are few among them in whose spirit I have confidence ; the privates are all generals, but not soldiers, and so jealous that it is impossible, though a man risk his person, to escape the imputation of treachery." And Schuyler capped this description by coolly announcing to Congress "that if Job had been a general in my situation, his memory had not been so famous for patience." With a thousand of these men Montgomery was to push forward against Montreal ; with a thousand more Arnold was to plunge into the desert, in hopes of surprising Quebec.

As soon as Schuyler received Washington's despatch, he hastened to rejoin his troops ; and on the 6th of September, having over-

taken Montgomery two days previously at Isle La Motte, he disembarked before St. John's. Late that night his officers were summoned to his tent. A man had come in with information which, if true, would imperil the safety of the army. He himself was all in favour of immediately falling back; and the council voted with him. Before dawn the camp was struck, and the army was in full retreat on Isle-aux-Noirs. When Schuyler's action became known to Congress there was a hot debate. It was becoming more and more evident that he was not equal to the emergency. Montgomery's own fear, in voting for his appointment as major-general, that he had not nerve enough, was seen to be true. In the kindest possible manner, therefore, it was suggested to him that he would best consult his failing health by handing over the command to Montgomery. Whatever faults Schuyler may have possessed, jealousy was not one of them. He recognized Montgomery's talent, and at once acted on the hint. A day or two later he was carried down to the lake, and put on board a boat for Ticonderoga, from whence, with unexpected energy and unshaken loyalty, he continued to render every possible assistance to his brilliant successor.

There are men in this world who wreath an extraordinary fascination round the spirits of all who come within the sphere of their influence. George Washington, the Virginian, was one of these; another was the Irishman, Richard Montgomery. It is, indeed, impossible not to be struck by the strange resemblance, not only in the careers, but between the characters of the two men. Both had served the King with distinction in their youth—Washington on the staff of the unfortunate Braddock, Montgomery under Amherst in Canada. Both had put off their uniforms without regret. Both, secure of the affections of wives who idolized them, had retired early from public life, to end their days, as they hoped, in undisturbed happiness. Both, when the storm burst over the country, were elected to high political and military office; both, when the call came, emerged reluctantly from their retirement, since, in the words of Montgomery, "the will of an oppressed people, compelled to choose between liberty and slavery, must be obeyed." Like Washington, Montgomery was a born leader of men: he possessed, in a remarkable degree, that rare and wonderful power of at once inspiring the confidence, and winning the affection of those with whom he worked. Indeed, the story goes how the very "generals" of the northern army, as they passed, invalided, to the rear, filled every settlement and cabin with the

sound of his praises. "Patriots!" once hissed Robert Walpole, in a burst of scorn; "I can grow patriots, like mushrooms, in a night." But patriots like Washington or Montgomery are the work of God. Here were two men, with no ambition for what the world calls fame, who, setting their country before every tie, however dear, gave themselves entirely to her. A few short months before his death, full of sad longing to see again that dear face on which he had looked for the last time the day he left Saratoga for the front, Montgomery wrote these words from his far Canadian camp: "The Master of Hindostan could not recompense me for this summer's work; I have envied every wounded man who has had so good an apology for retiring from a scene where no credit can be obtained. O fortunate husbandmen, would I were at my plough again!" Years and years later, in resigning the great



RICHARD MONTGOMERY.

office to which his countrymen had called him, hear George Washington speak: "Having finished the work assigned me, I retire from the great theatre of action; and, bidding an affectionate farewell to this august body, under whose orders I have so long acted, I here offer my commission and take my leave of the employments of my public life."

The departure of Schuyler for Ticonderoga was the signal that the policy of hesitation was at an end. Before the first stage of his journey was completed,

the Americans were back again under the walls of St. John's. Nature had intended Philip Schuyler for a life of ease; the irony of fate had made a general of him. The man who now assumed his command and his responsibilities was a soldier in something more than name, a difference which we English were soon made to comprehend. And, indeed, a man of less indomitable courage than Montgomery might well have stood aghast at the prospect before him. In the teeth of falling winter, with an army little larger than a modern regiment, so badly disciplined that the privates argued with the officers, and so badly found that they had not sufficient powder to work their batteries, Montgomery was

called upon to achieve the conquest of Canada. That he failed is not much to be wondered at: that he so nearly succeeded is indeed truly marvellous.

Aware that a determined effort would be made to relieve St. John's, Montgomery had no sooner drawn the blockading lines tightly round the fortress than he despatched Ethan Allen to beat up the country for recruits. At Chambly the Canadians rallied eagerly to his drum, but such was the extraordinary standard of discipline in the revolutionary ranks that, instead of marching at once to the relief of Montgomery, Allen coolly proceeded to make war upon his own account. Whether, having surprised the commandant of Ticonderoga with his breeches in his hand, he imagined that English officers always slept at their posts, or whether, eaten up with vanity, he was under the impression that it was open to him, whenever he pleased, to emulate "Cæsar's thrasonical brag," is immaterial. He looked across the St. Lawrence, and determined upon the capture of Montreal. On the night of the 24th of September, he slipped over to Long Point with about a hundred men. Brown who, with two hundred more, was to have supported him, did not follow. When morning dawned he was like a rat in a hole. He could not go back, for the English ships lay in his path; and, with the force at his disposal, it was madness to go on. The English settled the question by marching out and attacking him. In two hours all was over. He entered Montreal, it is true, but as a prisoner.

"Are you that Allen who took Ticonderoga?" demanded General Prescott.

"I am the very man," he replied.

"Then," said the Englishman, with an oath, "you shall grace a halter at Tyburn."

And with that, heavily manacled, he was cast into the hold of a transport, and shipped for imprisonment in England.

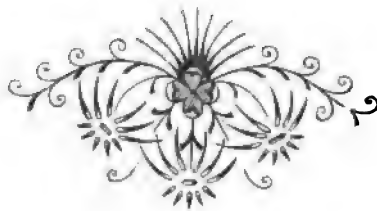
"I am sure," Washington had written to Schuyler, in urging him to attack Canada, "you will not let any difficulties, not insuperable, damp your ardour; perseverance and spirit have done wonders in all ages."

And in the face of escapades such as that of Allen, Montgomery had need of his full share of those attributes. It was bad enough when a vain recruiting officer started as a general upon his own account, but it was still worse when every recruit proposed to set up as an authority. The nine colleagues of Miltiades, or the Dutch deputies who kept an eye upon Marlborough, were a joke to

this supervision, which would have been absolutely ludicrous if it had not been so injurious. Things came to a crisis, however, when one day Montgomery, having given orders for the removal of the breaching battery to a spot from whence its fire would be more effective, discovered that in the opinion of the army it was very well where it was. A less patriotic man would have thrown up his command in disgust; he, however, thought nothing of his reputation, but only how he might best serve his adopted country.

"I did not consider," he groaned, "I was at the head of troops who carried the spirit of freedom into the field, and think for themselves," and with that he gave them their way. The matter of the battery would have been more serious had he had powder enough to work it effectually, but even that was running short; whilst, as if to accentuate his difficulties, the angel of sickness passed over his camp, and smote as he went. One consolation he had, that Carleton was hardly more happily circumstanced than himself. That unfortunate governor was himself engaged in endeavouring to make bricks without straw; in other words, to wage war without soldiers. Across the river, at Montreal, he was always busy raising an army for the relief of St. John's, but as his recruits mostly deserted within twenty-four hours of their enlistment the process was likely to take time.

(To be continued.)



Warfare in Italy.*



THE first thought which moves the reader of these pages is a regret that their scope has not been extended so as to include the Italian campaigns of Prince Eugene of Savoy. From this era it was that scientific warfare, in Italy at all events, in reality dated, and the feats of that illustrious commander, depicted from an Italian point of view, would have possessed a real and novel interest. Why the war of the Austrian Succession should have been selected as a starting-point, instead of the struggle for the Spanish Crown, is not quite clear at first sight. The gist of the book is an account of the Napoleonic contest as it affected the Italian peninsula; for the half dozen campaigns which were waged there in the interests of Maria Theresa form a mere overture to that tremendous drama, and are probably included merely as elucidating the strategy that was inaugurated by Bonaparte. Thus considered, Captain Zevi's book attracts the foreign inquirer, just as a well-known landscape excites our curiosity when gazed on from a new standpoint, though undoubtedly the omission of Eugene's feats of arms robs the work of its completeness, and is to be the more regretted because it is proposed to continue the narrative from the pacification of 1815 down to the present day. Italian officers, for whose behoof it has chiefly been written, will find the information it supplies invaluable, for the plains of Piedmont and of Lombardy, the basin of the Po and its tributary streams, have been so constantly the theatre of armed conflict that the solutions of military problems, as they occur, ought to be almost as patent to the instructed officer as the gambits of chess. We need not specify to which end of the Alpine chain the writer casts his prophetic glance. Yet it was a desire to correct the bombast and exaggeration of French historians which induced him to take up the pen. In defence of

* *La Guerra in Italia: dal 1742 al 1818.* Dal Capitano nel 47° Fanteria, FILIPPO ZEVI. (Roma: Voghera Car o. 1887.)

Italian manhood, he insists that, though the martial glory of Italy as a nation was eclipsed throughout long ages, the valour of her children remained unaltered under alien rule, and that the mean estimate of it which has prevailed through Europe is by no means borne out by facts. The acute sensitiveness to foreign opinion, which without doubt pervades the ranks of the Italian army at the present juncture, constantly betrays itself here; while the author undisguisedly expresses the hope that the army to which he belongs may soon have the opportunity of establishing its military *prestige* on a permanent basis.

In January last our "Notes" recorded the fact that General Pierron had published in the *Journal des Sciences Militaires* an enquiry entitled "How was Napoleon's Military Genius formed?" The general replied to this self-propounded question that the campaign of 1796 was suggested to Bonaparte by a study of the campaigns of Marshal Maillebois in the same regions fifty years earlier. The hypothesis was supported by the undoubted fact that Bonaparte, on appointment to his Italian command, had applied to the *Dépôt de la Guerre* for a copy of the Memoirs of his predecessor. It is not so certain that he ever received them. The *Dépôt de la Guerre* was not in possession of the work, and there is no record to prove that the Directory ever sanctioned its purchase. But the hollowness of the whole inquiry has been demonstrated by a subsequent writer in the *Journal*, except so far as it enforces the use and necessity of studying bygone campaigns. It is the duty of every commander to make himself acquainted with the history of the theatre of war in which he may have been called upon to operate; and if the travelling library of the young Corsican general included the Memoirs of Maillebois in addition to those of Eugene, which were certainly there, so much the better for him and his army.

Maillebois, in 1745, adopted the common-sense plan of attempting to divide the forces of the allied Austrians and Piedmontese who were opposed to him, making use of their antagonistic interests to force them back upon divergent bases. Bonaparte repeated this manœuvre with unprecedented success in 1796, and again on the Belgian frontier in 1815, where he fell short of triumph by a hair's breadth. In 1745, the imperialists being concentrated in the famous position behind the Tanaro, between Alessandria and that river's confluence with the Po, Maillebois, by seizing on the cities Pavia and Piacenza, so alarmed Schulemberg, the Austrian chief, for the safety of his rear that, hastily abandoning his allies,

he hurried his forces to Milan for the defence of Lombardy. Upon this the French marshal, crossing the stream in his front, attacked the isolated Piedmontese and inflicted on them a severe defeat at Bassignano. If, indeed, one could become a military genius of the first order by studying the past, such luminaries would become inconveniently plentiful, and the drift of General Pierron's remarks would be towards irrefragable conclusions. This drift or tendency is to minimize the power of genius and to extol the advantages of study—unduly, as we conceive, or we should see better results from assiduous reading. Most of us know *how* to succeed, yet few attain success; and, out of the thousands of officers who thoroughly comprehend this elementary manœuvre of beating an enemy in detail, how many exist who could carry the attempt to a fortunate conclusion! Before quitting the subject, we may remark that never was this crowning manœuvre of war more brilliantly exemplified, not even by the great Master himself, than by the Russian Suvoroff, in 1799, when he separately operated against the armies of Macdonald and Moreau in Italy.

From the Peace of Aix-la-Chapelle in 1748 till the declaration of war against Piedmont by the French Republic in 1792, Italy enjoyed profound peace, while the Seven Years' War was devastating Central Europe, and the struggle for maritime and colonial supremacy was raging betwixt France and England. The Italian lands westward of the Alps, Savoy and Nice, of course fell an easy prey to the revolutionary armies; and it is decidedly a happy circumstance that now, in any struggle with France she may have to face, Italy will not have to waste force, or impair prestige by futile efforts to protect regions which lie outside her proper geographical confines. Till 1794 the war was conducted along the Maritime Alps and Apennines in the desultory and disjointed fashion which custom prescribed; but in that year Bonaparte and Massena (both of Italian birth) joined the French, and immediately a perception of the true principles by which mountain warfare is governed became manifest in their movements. They involved, it is true, a violation of Genoese territory, but the Austrians had not been more scrupulous. The fall of Robespierre, however, arrested the French successes; the popular representatives ordered a retreat to the mountains, and Bonaparte, implicated in the despot's ruin, was recalled to Paris, there to languish in eclipse and indigence for a season.

How decisive a rôle fortune played in his subsequent career stands out in bold relief throughout these pages. When he suc-

ceded to the command in Italy, not only were the men in an abject condition morally, physically, and from a material point of view, but the army itself was in a critical position, strategically speaking. Extended from Voltri, near Genoa, to its base on the Var; its back to the sea along the narrow strip of the Riviera, with the line of retreat in the prolongation of its left flank, a worse position could hardly be imagined, especially when it is borne in mind that the British cruisers could in many places sweep the road which winds along the shore with their cannon; in fact, a resolute advance of the foe over one of the central passes would in all probability have resulted in the destruction of the French. But the mere existence of an opponent such as Beaulieu eliminated most of the inconveniences of the situation. Had Colli been in command instead, it is within the range of possibility that Bonaparte's budding reputation might have been crushed at one blow. The Sardinian leader proposed to accept one of two alternatives; either to anticipate the French and, forcing the Appenine passes, break their centre by debouching on Savona and Finale; or, on the other hand, having concentrated the Austrians and Piedmontese in two masses at Acqui and Ceva respectively, to attack the invader as he issued into the plains, where the numerous and efficient Austrian cavalry could have operated with advantage; the wing not directly assailed was to act on the enemy's communications with the Riviera. Beaulieu, refusing to hearken to the counsels of a subordinate, assailed the extreme right of the French, near Genoa, the most unpromising point he could have selected, and paid dearly for his mistake.

Again, at Marengo, despite the brilliant strategic conception of the whole campaign, how nearly was the First Consul consigned by chance to disgrace and oblivion. Believing that Melas had crossed the Po to regain his lost communications with his base, the French leader would have retreated on the eve of the victory had not an overflow of the Scrivia prevented him. That he actually lost the battle, and that it was retrieved by the arrival of Desaix, and by the *coup d'œil* of Kellermann is a common-place historical fact. We recommend, however, for perusal Captain Zevi's merciless exposure of Berthier's mendacious despatch, which professed to narrate the course of the engagement. That ingenious officer represented, with the utmost assurance, the flight of the French left wing as a "change of front in echelon of battalions" when in truth the manœuvre was conducted on the principle of "devil take the hindmost."

The interest in Italian warfare declines after Marengo, its fortunes being completely dependent on the course of events in Germany, where the French Emperor commanded in person. In 1805, the Archduke Charles repulsed Massena's army from the formidable and famous heights of Caldiero, which block the advance eastwards from Verona; but was compelled to evacuate them and retire homewards on receiving intelligence of the capitulation of Ulm.

In 1809 the Archduke John was opposed to the Viceroy of Italy, but the scene of hostilities quickly receded from the valley of the Brenta to the plains of Hungary, and the Italian troops played a distinguished part in the battle of Wagram. With the rash enterprises of the faithless Murat in 1814 and 1815 this section of Italian military history is brought to a close. A rather shrill note of defiance to France is perceptible throughout these pages, whose author plainly considers a war with Italy's republican neighbours inevitable, if not unconditionally desirable. One opinion held by him, and persistently urged upon his brother officers, is this: that French soldiers are negligent in the performance of outpost duty and may, therefore, frequently be "caught napping." This is highly probable owing to the state of their discipline, which has at all times been defective, though it is extremely difficult to draw reliable inferences from solitary instances, which might be culled from the records of all armies. Almost anything may be proved if we generalize from isolated cases. The French, he thinks, are hardly reasonable in taxing Italians with ingratitude for services rendered in 1859: for these were paid for, cash down, and at the donor's valuation, by the cession of Nice and Savoy: a loss to Italy, which, though it may have been substantially a benefit, was not intended as such. Besides, he contends, the balance of gratitude ought really to be looked for westward of the Maritime Alps, since Italy furnished, during seventeen years of French occupation, no less than 450,000 recruits to swell French muster-rolls and fight Napoleonic battles. But the least said about international gratitude the soonest mended, and Napoleon III. would have been the last man in the world to take credit on such a score.

THE EDITOR.

Military Map-Reading.



PLACING troops on a map, and reporting on the features of country as depicted on a map, form an important part of the tactical training of officers, and lately this method of testing the military student's knowledge of the art of handling troops has been somewhat extensively adopted by examiners.

In order to make a practical use of a military map, it is not absolutely necessary to be able to make one; and it is to help those students of tactics who have not had the leisure or the opportunity to acquire a knowledge of military surveying, that the following notes on the most essential points in map-reading have been compiled.

MILITARY CONTOURED MAPS.

Measurement of Distances.

The distances shown between different points are horizontal distances. When the ground is undulating or hilly, the distance between any two points, measured along the surface, is greater than if the ground is level, and this distance is allowed for in all good maps.

Scales.

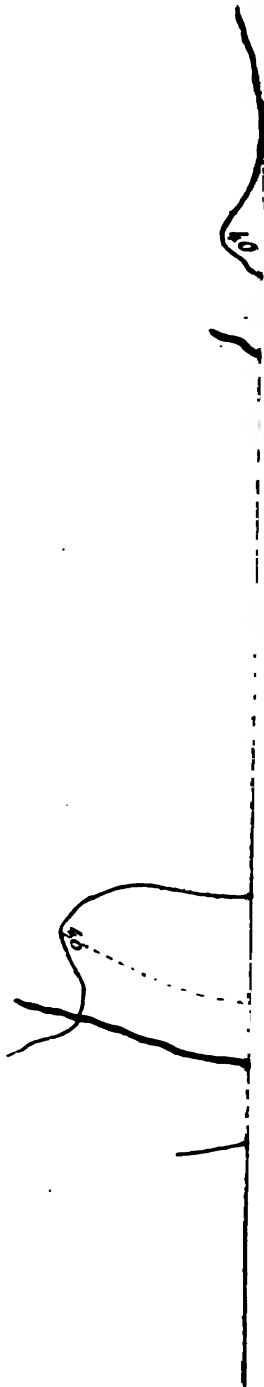
All maps are drawn to scale; that is, a certain distance on the ground is represented by a proportionate distance on the map.

Conventional Signs.

For military purposes a code of conventional signs is used to indicate certain objects; such as roads, bridges, walls, woods, hedges, embankments, cuttings, &c.

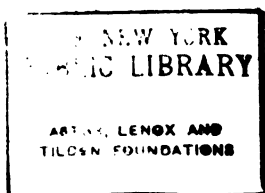
Features of Ground.

A hill is elevated ground from which the ground falls in all four directions.



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ASTOR LENOX AND
TILDEN FOUNDATIONS



When the ground falls in three directions and rises in one, we are on the "water-shed" of a ridge or spur.

If it rises in three and falls in one, we are in the "water-course" of a valley.

If it rises and falls in alternate directions we are on a "saddle."

The sides of hills either jut out or recede inwards, and are called "salients" and "re-entrants" respectively.

The salients are the "spurs," the re-entrants are the "valleys." (*Vide Plate.*)

A very simple and easy method of illustrating the above features of country is to take two flower-pots of different sizes, fill them loosely with stiff earth and turn them upside down as close to each other as you can hold them; then remove the pots, and the shapes taken by the earth will represent a very fair model of hilly country. Next, gently trickle some water on the top of each of the mounds of earth; the valleys will be represented by the course the water takes, and the spurs or water-sheds will remain dry, while a saddle will probably connect the two mounds of earth.

The terms plateau, ridge, knoll, pass, valley, ravine, undulating ground, are familiar to all.

Representation of Hilly Ground.

In military maps the general shape of the ground is represented by "contours."

A contour is an imaginary line drawn along the surface of the ground, following its shape and keeping on the same level throughout its whole length. A contour must either close on itself, when it indicates an isolated hill, or continue to follow an eccentric but unbroken course till it runs off the map. For the sake of clearness contours are generally drawn in red ink.

Steepness of Slopes.

The steeper the slope the closer the contours are together; but although their "horizontal" distances vary according to the steepness of the slopes between them, contours are all drawn at equal "vertical" intervals one above the other, and if we know what this interval is on a map, we can find the height of any point, or the relative height of any two points, by counting the contours, provided we are able to distinguish whether any contour is higher or lower than the next one.

In military maps the heights represented by the different contours

are usually numbered (they ought always to be). When this is the case, there can be little difficulty in finding the highest point, or in comparing one height with another. If the contours are not figured it is sometimes difficult, unless water is represented on the map; we then know at once that the contour nearest the water is lower than the next, and if we follow the contours up we know that the ground is rising until we cross the same contour twice, which means that a fall has commenced, and this means that we have crossed a water-shed line.

If rivers or streams appear on a map there is no difficulty in distinguishing *water-courses* from *water-sheds*.

Again, rivers cannot run up-hill, and they run out of the bends of contours, not into them.

In most maps the direction in which rivers run is indicated by an arrow.

When a contour closes on itself, it either means the top of a hill or knoll, or there are other contours within it which also close on themselves, and the smallest or inner of these indicates the top of the hill or knoll; and, again, when maps are shaded in mezzotint the hill-tops are left unshaded, and the *water-sheds* are shaded lighter than the *water-courses* parallel to them.

The accepted rule is that for military maps, at 6 inches to the mile, the "vertical" interval between contours is 20 feet.

At 3 inches to the mile, as the space is smaller, for the sake of clearness, 40 feet is the usual vertical interval.

Gradients

are expressed in two ways, either by the number of degrees in the angle which the slope makes with a horizontal line, or by the proportion between the height and base of the slope put in the form of a fraction of which the height is the numerator, and the base the denominator; thus, supposing the distance between two contours on a 3-inch scale map to be 400 yards the slope or gradient will be $\frac{40}{400 \times 3} = \frac{1}{30}$ or a rise of 1 foot in every 30 feet.

The gradients affecting movements of troops are as follows:—

45° or $\frac{1}{2}$ difficult for infantry.

30° or $\frac{1}{3}$ impracticable for cavalry.

15° or $\frac{1}{4}$ impracticable for artillery.

5° or $\frac{1}{12}$ good manœuvring ground for all arms.

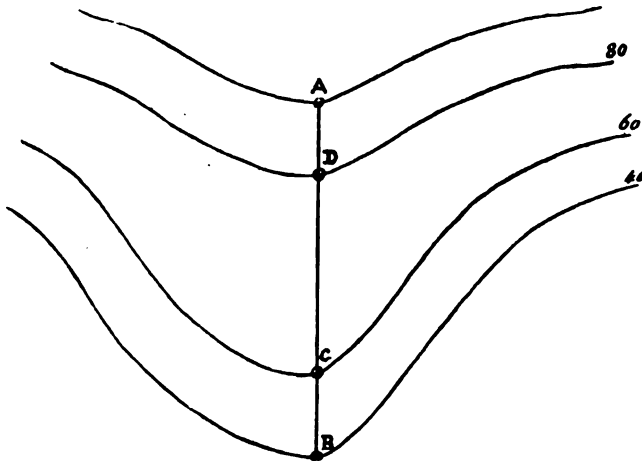
Visibility of Points.

To be able to tell on a map whether one portion of ground can be seen from another is very necessary, as it affects the placing of sentries, shelter trenches, guns, and troops, and it also regulates the all-important questions of obtaining the best field for fire, and the best and nearest cover from the enemy's fire.

Method of determining whether a point on a contoured map is visible from another point:—

First. "If the possible obstruction is obvious;" for instance, when there happens to be between the points a long gentle slope succeeded by a steep slope, or a considerable intermediate hill or knoll; in either of these cases the probable point of obstruction is obvious, *i.e.* if there is an obstruction to view, it will either be at the top of the steep slope or the top of the intervening hill or knoll.

EXAMPLE I.—Scale, 6 inches to 1 mile. Contours, 20 feet vertical interval.



No. I.

Is B visible from A? Probably it is not. Why? Because the ground above contour 60 slopes very gradually, while that immediately below is much steeper, and there will be a probable obstruction to view at C, where the slope begins to get steep.

A man standing at A will see the ground as far as C, because A D is steeper than D C, and there is nothing to interrupt his view ; but between C and B the slope is much steeper.

In order to ascertain whether B can be seen from A we must compare the slope from A to C with the slope from C to B ; (then looking down hill) if the first slope is steeper than the second the object is visible—if less, it is invisible.

To determine whether B is visible from A join the point of sight A and the object B, measure the distance from A to C (the probable point of obstruction) to any convenient scale, make this number the denominator of a fraction of which the numerator is the difference of level between A and C.

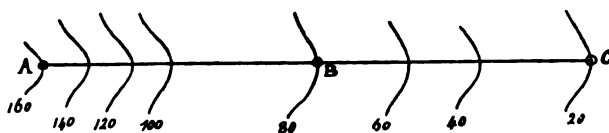
Treat the distance from the obstruction to the object, *i.e.* between C and B in the same manner. Compare these fractions ; then, *looking down hill*, if the first fraction be greater than the second the object is visible—if less, it is invisible.

$$\frac{\text{Difference of level between A and C}}{\text{Distance between A and C (in feet)}} = \frac{40}{440 \times 3} = \frac{1}{93}$$

$$\frac{\text{Difference of level between C and B}}{\text{Distance between C and B (in feet)}} = \frac{20}{110 \times 3} = \frac{1}{16.5}$$

The second fraction is greater than the first ; therefore B is not visible from A.

EXAMPLE II.—Scale, 6 inches to 1 mile. Contours, 20 feet vertical interval.



No. II.

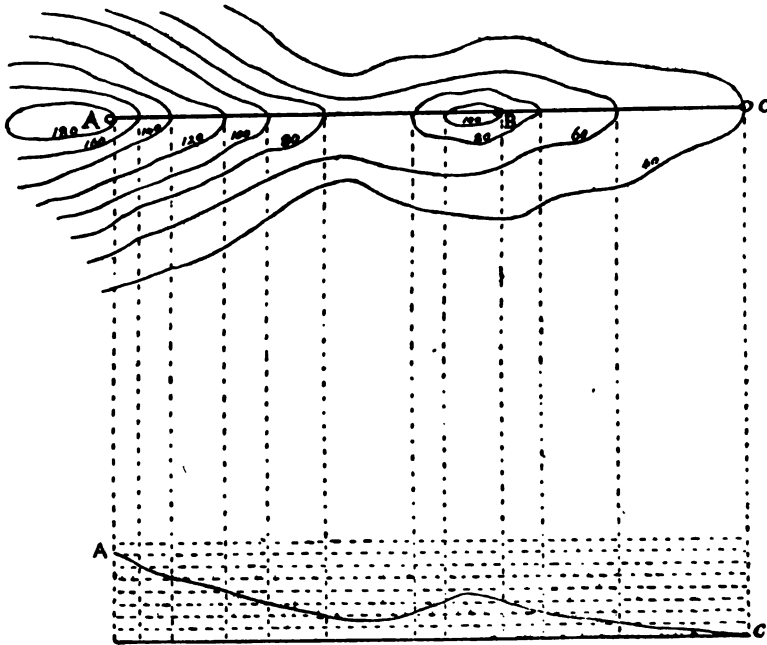
Is C visible from A ?

$$\frac{\text{Difference of level between A and B}}{\text{Distance between A and B (in feet)}} = \frac{80}{440 \times 3} = \frac{1}{16.5}$$

$$\frac{\text{Difference of level between B and C}}{\text{Distance between B and C (in feet)}} = \frac{60}{440 \times 3} = \frac{1}{22}$$

The first fraction is greater than the second ; therefore, *looking down hill*, C is visible from A.

EXAMPLE III.—Scale, 6 inches to 1 mile. Contours, 20 feet.. Vertical interval.



No. III.

Is C visible from A ?

$$\frac{\text{Difference of level between A and B}}{\text{Distance between A and B (in feet)}} = \frac{80}{600 \times 8} = \frac{1}{22.5}$$

$$\frac{\text{Difference of level between B and C}}{\text{Distance between B and C (in feet)}} = \frac{60}{400 \times 8} = \frac{1}{20}$$

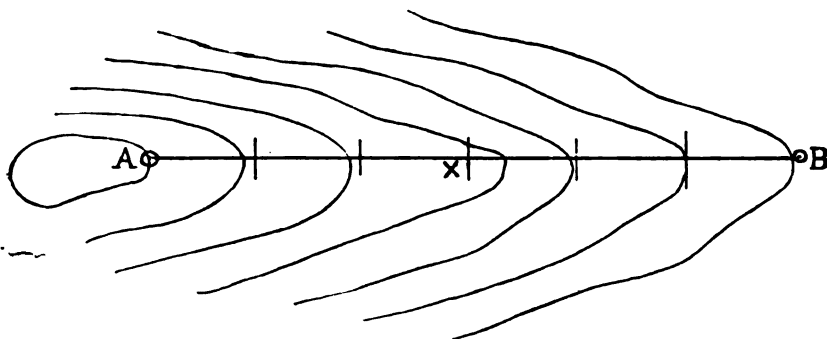
The second fraction is greater than the first; therefore C is not visible from A.

In this example it will be observed that A is four contour intervals more than B above the contour marked 60, which connects them; hence the difference of level between A and B is 80 feet.

If the possible obstruction be *not* obvious, join the point of sight and the object. Find the difference of level between the points, and graduate the *line of sight* evenly according to the contours of the ground. Compare the contours of the line of sight with the contours of the ground; then, *looking down hill*, if a contour of the

ground occurs on the *object side* of the corresponding contour of the line of sight, it is an obstruction to view. Looking up hill, *vice versa*.

EXAMPLE IV.—Scale, 6 inches to 1 mile. Contours 20 feet vertical interval.



No. IV.

Is B visible from A?

A B = 1,000 yards, and there are six *contour intervals* between A and B. The line of sight falls 20 feet in every 166 yards ($\frac{1000}{6} = 166$ yards) from A.

Set off 166 yards from A.

The point of your compass comes over the first contour of the ground, and over the second, but the *third* time the point of your compass comes inside the *corresponding* or third contour of the ground at X; therefore this point is an obstruction to view, and B is not visible.

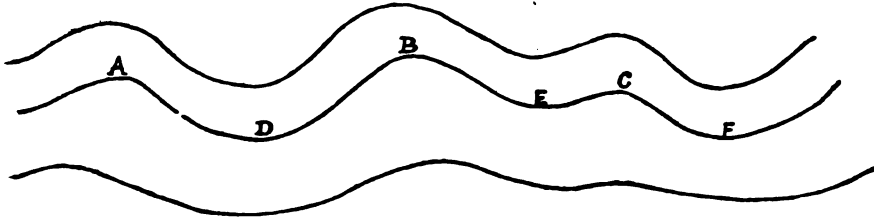
Posting Sentries.

If points are on the same level, and on the same contour, it does not by any means follow that they must necessarily be able to see each other.

On accompanying sketch take three points A, B and C, and suppose them to be sentries looking down hill towards the bottom of the page.

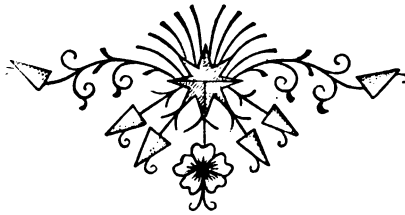
They would not be able to see each other, because the lines of sight joining them would pass over higher ground; in the case of A and B, more than a whole vertical interval above them; but if

the sentries are posted at D, E, and F, *i.e.* in the salients instead of in the re-entrants, they could see each other, because the lines of sight joining them pass over nothing but lower ground.



No. V.

Having first learnt how to read a map, the military student can proceed to place troops on it, more or less scientifically, according to his knowledge of the principles of modern tactics.



Wanderings of a War Artist.

NEW SERIES.

THE RUSSO-TURKISH WAR.

By IRVING MONTAGU.

CHAPTER IV.



THE first streak of dawn! To what strange sentiments, all over the civilized and uncivilized world, is the first streak of dawn parent. The mother at the bedside of her sick child, the wife by that of her husband, with what anxiety do they hail the approach of yet another day! That grim, black, forbidding banshee Night, trailing behind her sable draperies as she goes, seems scared by the approach of her fairer sister; it is a moment when many wake to renewed hope, some to the crushing conviction of those horrors which they only half realized in those long drawn-out hours of night preceding its advent. The same slowly increasing light

Struggling still with the sable shroud,
Revealing in grim array
The terrors which night has striven to steal
From the sorrows of yesterday.

It finds its way through the chinks in the shutters, and combats that of the glittering candelabras which light up the haggard, careworn faces of gamblers and *roués*. It comes alike to the potentate in his palace and the prisoner in his cell, reminding each of the fetters which bind him, be they State troubles or handcuffs. It comes to the young and innocent laden with the sweet aroma of opening flowers, to the old and weary with a panorama of broken promises and crushed hopes, night to them being almost preferable to the terrible awakening.

So it was as the first streak of dawn fell athwart those mud kraals, and cast its long grey shadows over their dark entrances,

where, hugging their little ones close to them, crooning a wild native dirge the while, those poor Anatolians bewailed the fate of their children who had been ruthlessly taken from them, even more than that of those who lay dead at their feet.

With us, however, it was to be a great day, since that night we hoped to be in Kars. Rest was now impossible, so we hastened to get our troop in marching order, and it was not long before we were clear of that little nest of violated homes. A heavy fog hung over the highlands, by which we seemed blocked in, yet we pushed forward as best we could across the trackless plain which, with the aid of a compass, we thought we had discovered to be our route.

Before we had gone far, we were met by some eight or ten Turkish scouts who, galloping in our direction, presently dashed past us, shouting as they did so at the top of their voices—

“The Cossacks! The Cossacks!”

The next moment they were lost in the dense mist from which they had emerged.

There was an electricity in the words, which conveyed to us simultaneously (forewarned as we had been) the same all too vivid picture of headless Britishers and Russian roubles.

At such a moment that everyone should be for himself is but human. Being horseless, as will be remembered, I alone had nothing left me but to await the issues of fate. Had running away represented anything, there was no cover. I was alone; all had galloped off, in wild flight, for dear life.

The fearful sensations I experienced in that short period are too terrible for description; a panorama of the whole of my past life flashed vividly through my brain. I was so awe-struck, that I do not think I actually realized my terrible position, and the grim prospect which was awaiting me.

A moment later I was brought back to myself however, for, through the mist on the horizon there appeared a moving mass of cavalry converging towards me. I had but few moments left to me now. Would my utter helplessness appeal to their humanity, if they had any? The humanity of a Cossack! No! There was no consolation there. Each moment, death drew nearer. Then suddenly an unworthy alternative presented itself; I mechanically drew my revolver.

Why should these assassins score? If I must die, why be butchered? Far better take one's own life than——

The rapid thud of horses' hoofs coming that instant from the

opposite direction caused me providentially to turn, diverting my intention and attention at the same moment. I was petrified with astonishment, for there, back "into the jaws of death," came the *Manchester Guardian* and *Scotsman*. No; they were capable of many things, but they could not leave a Britisher alone.

We were all three now prepared for the worst. A few seconds more, and they swept like an avalanche down that incline. They were upon us!

What happened next, eh?

Ah, just so! Why—nothing at all!

They were a troop of Circassians; it was a false scare. In the fog of early morning those Turkish scouts had mistaken them for Cossacks, but, happily for us, they turned out to be some of Schamyl's light horse reconnoitring. We were safe.

Our escort, naturally, were nowhere to be seen; they had been utterly scared. Some time afterwards, however, we came upon them, and again journeyed on the road together.

No horse being equal to more than one rider, they were, I take it, quite justified in pursuing the course they did; their presence could have availed me nothing, and must certainly have cost them their own lives had we fallen into the hands of the Cossacks. Nor do I say this without thorough appreciation of the cool courage which, when comparatively out of danger, suggested the return of those two Britishers.

I think that was the longest day I ever remember. For miles I dragged along, supported first on the arm of one and then another, almost fainting with exhaustion; unable now even to sit the horse from which Holmes had dismounted, and implored me to ride; and so again and again we rested, only to renew the journey with greater effort. The distant goal was now actually in sight, but like an *ignis fatuus*, no appreciable difference seemed to be made between it and us. There in the far distance stood the great impregnable fortress, its guns belching forth grim messages to the Muscovites, while the smoke from its embrasures floated off lazily to the still horizon, and dome and minaret rose in snowy whiteness against the clear, cloudless azure of that Eastern sky. Again, like monster snowballs at intervals on high came time shells, bursting into feathery film ere they descended, projectiles of which one might well say distance lent enchantment to the view.

Curiously contradictory were my feelings at this moment. Yonder was the haven of rest I was seeking. There was the shelter I

strove for ; just the very spot, the very corner of the earth, where, at this particular time, neither shelter, in the ordinary acceptation of the word, nor rest were to be found.

Many hours had now elapsed since the previous morning we had left in advance of Mukhtar's army, hoping to gain the Karschchai. It was on the advice of Williams we did this, which, invaluable otherwise throughout, failed in this particular. During the whole of this time we had not had more than three hours sleep, the rest of the time being occupied with temporary halts and terribly weary tramps over the roughest country imaginable.

Though it would have availed nothing to speak of it, I could feel that my strength was rapidly ebbing, my slower pace telling naturally to a great extent on the progress of the others. I was now almost unable to drag one foot beyond the other, and nothing save the kindly solicitude of the rest would have enabled me to hold on.

Once more the evening was closing in, bringing with it fresh difficulties, for we found we had altogether lost our reckoning. We were traversing a forest, and the night being intensely dark we became more and more hopelessly lost in its now black and tangled meshes ; so much so, that at last, thoroughly worn out and exhausted, we threw down our wraps, such as they were, and quite regardless of dangerous reptiles or other denizens of the woods, soon fell into a heavy sleep, from which we did not wake till the sun was again high up above the eastern horizon.

Having partaken of what scant food we carried (for our araba, it will be remembered, had been sent on to Kars by another route), we again continued our way, but it was not till long after the ordinary hour of siesta that we emerged from the wood. Kars, owing to our position and the ruggedness of the country, was for a considerable time lost to view, the distant sound of cannonading only being heard. Anon, like some enchanted city of the *Arabian Nights*, did it rise yet a little closer and clearer before us. At length, leaving higher altitudes, we descended into the vast plain through which the Karschchai wound its serpentine course ; and here it was we fell in with the division of Mustapha Pasha, going to the relief of that city.

The *Illustrated London News* of August 18th, 1877, contains a paragraph which vividly brings back to my mind many curious incidents happening about this time. It ran as follows :—

“ Another of our special artists, Mr. Irving Montagu, has also reached Kars with the army of Mukhtar Pasha, and we have

received from him a number of sketches relating to the relief of that city on the 8th ult., one of them, which appears in a separate page, shows the Turkish artillery, under Mustapha Pasha, crossing the river of Kars. This was effected by means of a bridge of sunken bullock waggons." So I have made this crossing under the protection of the batteries of Kars one of my illustrations.

The bringing up of horses and heavy guns, the hurry-skurry of the artillery, cavalry, and miscellaneous troops, who were hastening across that straining, creaking, impromptu bridge of sunken bullock waggons, the officers standing to their horses' girths in water directing operations, all come back vividly before me as I write. And so it was that we gradually drew closer and closer



NOT DEAD YET!

still, till the thunder of the guns on those heights culminated in a sullen roar like that of a sleepy lion.

Then the brighter colours of day became confused and blurred—for it was sometime after the main reinforcements of Mustapha had occupied Kars that we closed up in the rear—just as a mist rose, obscuring the base of the rocks on which the citadel stands. Then, as if by common consent, the firing first flagged, then ceased, till all was strangely still and silent, while a metallic flood of gold from the west, suffusing the earth, told how yet another historic day had sunk to rest in Time's oblivion.

Then the blue overhead grew purple and more purple still, and the stars began to glitter in the great unknown beyond, as if they were responsive signals to those flickering lights which appeared on the side of the city which we were approaching, and which offered no attraction to Russian attack.

Presently, with that rapidity peculiar to the East, the broad gold



THE RELIEF OF KARS.

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belt, against which Kars had but a moment before stood out as black as Erebus, narrowed its dimensions and was gone, and the thin crescent of a new moon rose significantly over the encamped Moslems in that silent stronghold where dying and living alike awaited the clarion which should call them to celestial peace or earthly war.

I was now holding on to Holmes' saddle, putting out my last remaining strength.

Yes; there, plainly enough in the distance, I could see the city gates through the growing darkness, till they became merged, as



I AM VISITED BY THE DOCTOR.

it were, in a sort of unnatural light—how or whence it came, I know not, and then——

* * * *

Personally, I remember nothing beyond this point till I found myself stretched on a table, in one of the filthiest holes that ever pretended to the name of café, though I was afterwards told that when only a few hundred yards from those gates I fell to the ground insensible, and was carried on an improvised litter to this dirty khan, where a crowd of villainous-looking ruffians gathered closely round me, to the exclusion of such little air as was to be obtained, for the express purpose of seeing an English pasha die.

I understand that a quantity of raki was administered to me; and this, probably, in the absence of any better restorative, assisted my coming to. I distinctly remember having taken in the situation as I glanced up at the wistful faces of those grimy curiosity-mongers, who had come to listlessly watch the passing of a Giaour

to his happy hunting-grounds, for I am told that my first exclamation on coming to was "Not dead yet!" which Williams promptly translated, in his joy at my recovery, for the special benefit of those outwitted, disappointed scoundrels, who now, one by one, sheered off.

* * * *

Steep, irregular streets, houses unequal in size and shape, each outvying the other in ungainliness and filth, of such is the internal economy of Kars, one of the strongest military positions in the world. Properly garrisoned, it is said to be absolutely impregnable, unconquerable except by famine or treachery. From any



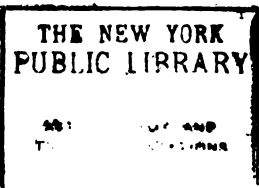
A CORNER IN KARS.

other point of view, it is, perhaps, the most depressing and miserable of Eastern cities, a sort of Asiatic Ratcliffe Highway, rejoicing in a concentration of the innumerable odours of which an utter absence of drainage, combined with vegetable and animal corruption of all kinds, may be supposed to consist; nevertheless, as part of the great quadrilateral of which Batoum, Erzeroum, and Trebizond are the three other points, it has long been a standing menace to invaders.

Those tortuous turnings, those grimy, greasy, scared-looking natives, many of whom had lived *al fresco* for months, come back to me now all too vividly. "Corners in Kars" would make a

series of curiously-interesting sketches, its architecture being a nondescript conglomeration of styles which seemed thoroughly in accord with its equally nondescript population, some of whom yashmacked, and some not, were sleeping peacefully through sheer exhaustion, undisturbed by the din around them—a peace denied those who were all too painfully awake to the horrors of war.

Here you would come upon a motley crew in rags and tatters, starving quietly in a death-trap of exhalations; there, up a dark entry, are a group of scared citizens and burly Circassians, with a





BAYAZID.

sprinkling of the opposite sex, standing at some conveniently-sheltered corner, where a sort of Moorish frontage, painted in coarse colours on rough wood, give to all that remains of a sixth-rate khan a distant appearance of Eastern magnificence—a touch of romance to absolute squalor.

B-r-r-rr—boom! A shell has burst over the devoted city, and that touch of romance is superseded by the stern reality and necessities of war. Men, women, and children scuttle out from every conceivable corner, flying here, there, and everywhere, like so many scared rats, only to gravitate presently into fresh corners, trust once more to Kismet, and indulge, in the absence of raki, in that small modicum accorded them of the best of all cordials—Hope.

By the way, *apropos* of Kars, as the sequel shows, I may refer here to Bayazid, a city on the Persian frontier, in the Pashalik of Erzeroum, some fifteen miles from the historic Mount Ararat. This town forms one of my subjects for illustration; it has a painful interest, since here it was, during the time I was in Anatolia, that the Kurds committed unparalleled barbarities on the Christian and, indeed, Turkish inhabitants. So beautiful is its situation, so lovely its aspect from without, that it is difficult to associate the place with cold-blooded murder.

On the massacres which took place there I have touched lightly, since the horrors were blood-curdling; but of two notorious individuals who were encamped under its walls, I can say something which will be of general interest.

Place aux dames! Let me introduce you to Fatima, a lovely young Arabian woman, fired by religious zeal, who took upon herself the supreme command of some Bedouin squadrons, which, under her able direction did prodigies of valour; and, what is more, she fired the heart of a Russian general, who, won over by her soft glances, deserted even his country to follow her fortunes, and when the assault on the Kizil-Tepe had been decided on, he rode by her side in front of her Arab irregulars.

One night they fell in with a Cossack patrol, with whom the renegade Russian—who now called himself Moussa Pasha—was able, of course, to converse freely, moreover giving the password, which, by some means, he had obtained. The Russians, supposing them in the darkness to be Russian irregulars, let them pass, when they immediately turned and attacked those hood-winked Cossacks, nearly all of whom were either killed or made prisoners.

What Fatima did not win by force of arms, she succeeded in

accomplishing with her eyes—great gazelle-like Arab eyes whose liquid depths seemed unfathomable; eyes which would have led you or me, reader, on—even had it been to Hades. The victories, however, of the fascinating Fatima were short-lived, for she was shot through the breast not long before the fall of Kars. The Russians, who had heard of her fame and found her body, took her up tenderly, and with something of sentiment thrilling their rough soldier natures, consigned her in sad silence to her grave on the battle-field, a fitting sepulture for that bright-eyed Amazon—Fatima.

The other character of whom I would speak was of the opposite sex: a brigand chieftain, celebrated all over Asia Minor as a terror to the passing stranger, and who, having defied capture for years, now fired by patriotism had sent to Mukhtar Pasha offering his services in return for a free pardon. These terms having been accepted, he now with his wild hordes had become the General's ally.

Tulu Moussa or Hairy Moses, was a tall, angular creature, who seems to have had the scent of the blood-hound, and could manage a reconnaissance as no ordinary officer could pretend to do. In the secret service he had no rival, being amongst spies a veritable king, not only collecting information here and there, but actually getting in and out the Russian lines on more than one occasion in disguise. Indeed, he played the part so well as to be able to present to Mukhtar several sums of money given him by the Russians in consideration that he would bring information as to Turkish movements, when a considerable augmentation of the amount was promised.

In costume he was picturesqueness personified, a typical brigand of the first water his long olive green Circassian tunic reaching to his knees, richly embroidered with silver, while below this came red leather top boots, turned up, Turkish fashion, at the toes. His waist-belt was made of large silver coins (Medjidie's probably) each of which had a filigree pattern engraved on it. Numbers of silver cartridge tubes decorated each breast, while his long Circassian daggers and huge sabre were, about hilt and sheath, one glittering combination of silver, lapis lazuli and coral. His followers were similarly though not so expensively dressed.

To Mukhtar, Tulu Moussa was worth his weight in gold.

"Set a thief to catch a thief" is a trite old saying, and if spies were to be caught, or rogues or deserters punished, the head of the Generalissimo's "Intelligence Department," Hairy Moses, was

always the man to carry out instructions to perfection. He was "the best killed" man in Asia Minor, having, according to report, been done to death at least a dozen times in the neighbourhood of Kars, though rumour has it—and I think it right in this case—that he too is "not dead yet."

It would have been impossible to have obtained, under any circumstances, a more comprehensive idea of war than from the heights of Kars, with its forbidding surroundings of great guns and rock-like masonry. Looking either out into the vast plains below, or on to the hills above, you had war, war everywhere, in one shape or another. Troops, looking like pigmies in the distance, defiling first one way then another; cavalry dashing off to take up positions of observation; artillery coming in, infantry going out, ambulances here, ammunition or store waggons there, Irregulars everywhere; and so on, to the end of the chapter.

Talking of Irregulars brings one to the natural savagery of the many tribes who foregathered at that time in that part of the world, and who, under the plea of Holy War, came from all sorts of out-of-the-way places ostensibly to fight for the Crescent, but *really* to look after themselves. Probably the Christians in the province of Van suffered most, the much talked of Bulgarian atrocities not comparing with the wholesale outrages of all kinds which they had to endure; torture, mutilation, and murder being of every-day occurrence. One incident which came within my own experience, will serve as a case in point.

It was that of a poor peasant (a widower), who, bound hand and foot in his mud hovel, was propped up in this manner to sit and watch his own child spitted and roasted alive before his eyes. The pleasure seekers having enjoyed the situation to the full left that ruined home, the poor man being found there later on screaming with laughter—a raving lunatic.

There was a veritable reign of terror at one time during this Asiatic campaign, no one being safe, even for the shortest distance without a very strong escort. Circassians and Kurds seemed alike soulless and savage to the last degree, having the same feeling for the Giaour as the Devil is supposed to have for Holy water.

Since I was still suffering from my recent experiences, I was glad to "bide a wee," and to the distracting music of bursting shells and the more distant rattle of musketry finish a fresh batch of sketches, destined for the first brigand or other messenger I could find, who, as I have already explained, was always made

thoroughly to appreciate the fact that though perfectly worthless to him, their safe delivery in Erzeroum would mean untold largess. - Though this is not a dissertation on war, or the politics of the period, though I do not attempt to discuss the campaign from a military standpoint, as other and abler contemporary writers on these subjects have done, and though for the benefit of my critics I repeat these are simply *the wanderings* of a war artist; yet it will not be uninteresting to know, not only how staunch to the end was the defence of Kars but what subtle engineering tactics were displayed by the invaders, whose batteries, to a great extent, circumvented it. Not only an almost impregnable vantage point itself, the Tabias, or fortified portions which surrounded it, made it infinitely more formidable. To be in one of these under heavy Russian fire was to realize not only what shells on their own account could do but the additional danger from splinters of the rocks against which they crashed, thousands of pieces of which were sent flying with tremendous force in all directions, from which many hundreds received fatal wounds.

Although the Russian fire was concentrated chiefly on the forts, shells repeatedly fell in the town, not, however, doing so much harm as might be supposed, though one case happened in which a mother and her two or three children were at the same moment sent into eternity by one of these deadly messengers. That mortality was much less in the towns proper, may not only be accounted for by the sighting of the enemy's guns, but by the fact that the people themselves hid away in the most unheard of corners, nooks and crannies each day during the time when the contending forces were most active, while towards evening, when those Russian Krupp 16½-centimetre guns had grown hoarse from belching forth destruction, poor humanity would creep out to seek for food and stretch its limbs, with eyes dazed and dilated, as if haunted by the spirit of horrors. But was it not Kismet that so ordained this respite should be afforded them, and were good Moslems ever indifferent to that? Indeed, there was one curious illustration of this submission to fate.

Fifteen soldiers, who had been sentenced to be shot for cowardice, were drawn up one day for execution, and placed in line facing the firing party. Twelve fell; three, however, were only slightly wounded. These were at once taken into the hospital, and being cured, were reinstated in their former military position. Favourites of the Fates, they had passed through the ordeal and been spared by Kismet.

I think perhaps the most fitfully terrible aspect under which the grim fortress could be seen was just when not only time-shells were bursting in mid air, and percussions were dashing to fragments everything with which they came in contact, but when, in the midst of all the destruction which the inventive mind of man could conceive, the elements joined in concert, and one of those heavy Asiatic storms raged of which the stay-at-home Englishman can have no idea; when the Muscovite and Turkish artillery blended with the prolonged roar of the thunders overhead, and flash after flash of forked lightning lit up the camp and rent asunder the heavy black clouds above us, which each moment rising higher had already half hidden the great red disc of the sun, fiery and bloodshot as it were, now slowly descending in the west. Coupled with this, too, you were enveloped in a downpour of hail and rain, and worried by a whirlwind calculated to take you off your legs at any moment. When in your mind's eye you can picture this, then you can, perhaps, get some faint idea of what happens when heaven and earth unite in making the prospect of coming night doubly hideous.

I am not likely, for my own part, to forget our forced march to Kars, for though at first to some extent I recovered, it was not long before a relapse set in, and a painful complaint known as erythema, brought on from over-exhaustion and poorness of living seized me, the dropsical nature of which caused my limbs to swell to such an extent that the prospect of a permanent residence in that city of smells began to present itself; and since locomotion became really difficult, my first consideration was to secure, as soon as possible, a horse in place of the late lamented Barkus. This, after considerable trouble, I was fortunate in doing, though I found it utterly impossible to replenish our stores, as in view of a long-protracted siege nothing, at any price, could be spared from the commissariat. As it was, the living in Kars was abominable, though this was a condition of affairs with which, in my experiences of other sieges, I had grown familiar.

About this time a messenger from Erzeroum arrived with letters, amongst which was a characteristic one from Mrs. Zohrab, the consul's wife, from which I may quote with a view to giving some idea of how the uncertainties of war influence even the gentler sex; at least, how at that time it influenced the gentlest of her sex in Erzeroum.

. . . . Thanks for your welcome note, and a peep at those charming sketches. [How I wish that "to-morrow" would dawn, for all our sakes. We are wild with impatience

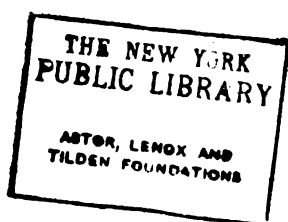
at getting no news. . . . One day we hear that Kars is taken, another that the Russians have quite disappeared, and the following day news comes of the bombardments continuing ; after which, the old story begins again. I'm so disgusted at not having anything nice to send you. I expected long ago to see you back here. My husband says sardines and biscuits are the best things ; bread gets stale. . . . We have had the most abominable weather here, hail-stones as big as pigeons' eggs, furious winds, rain and thunder ; to-day things look more peaceful. Now that the elements have ceased raging, I wish the armies would take up the game and finish it up quickly. Excuse this dreadful effusion, which is a true reflection of our present condition of "hope deferred." All of us join in best regards to you, and in sincere sympathy with your present privations, which we hope will be speedily brought to an end by some conclusive fighting.

Yours truly,
E. ZOHRAB.

The stream of Asiatic history being no more affected by your scribe's return to Europe than it need be in this chronicle, I would add that since the decisive fight at Zevin, victory crowned the efforts of Mukhtar Pasha. First occupying Kars, he pushed on nearly to Erivan, holding in fact almost all the trump cards in his hands, when suddenly the tide turned, defeat following defeat, till retreat, irreparable retreat, was all that was left to that great general.

Since the opportunity may not again occur, I may here refer to the combined influence of piety and pluck which, by example to his soldiers, that devout Moslem Mukhtar Pasha succeeded in exercising over the army of Asia Minor.

During the Ramazan, from early dawn till the holy gun at night boomed out its permission to satisfy the cravings of the inner man, the true devotee eats or drinks nothing, nor would the most tempting offer of tobacco to the weary soldier make him forget for one moment the duty he owed to Allah. Periodically, during the day, would the Imaums call the troops to prayer with shouts of "Allah Akhbar, la Allah il Allah !" when they would prostrate themselves before the great God of whom Mahomet was the true prophet. Nor in the bloodiest fighting were these religious exercises relaxed, a piety, by the way, curiously associated with retaliation, which they are said in war to hold sacred, and which sanctions the torture and murder of the wounded Infidel, which was generally supposed to apply to those wounded Russians who found themselves in Turkish hands. I should be very sorry to say that such *was* the case, though I remember much rejoicing having taken place amongst the Britishers attached to the army on the discovery, on one occasion, in their midst of a real live Russian drummer boy, the first Russian prisoner in evidence for some considerable time.





AN EXODUS.

It was General Hetmarn's brilliant victory of Mount Acolias which, in his then extremity, cut Mukhtar's army in two, Sazereff's division intercepting those who retreated on Kars, when 7,000 prisoners and four guns fell into the hands of the Muscovites, the Turkish right wing being driven from its position on the Aladja Dag, and confusion reigning triumphant. Mukhtar having now nothing left to him, rushed back into Kars. This movement was followed by that long-drawn-out effort, that hope against hope, which still led the Turkish general to hold on; and then—well, then came the drop scene, Kars, the great corner stone of the quadrilateral, one of the strongest fortresses in the world—fell.

All who could, made off in hot haste for Erzeroum, this being the next point to which the retiring Moslems clung. True, should they not be intercepted, they still had the Kop-dagh, perhaps the finest military point in the country, to call their own; from which, however, if once dislodged all would be lost. Such was the condition of affairs when Mukhtar retreated from Kars on Erzeroum.

Nor was it long before the capitulation of the *former* place was followed by that of the latter. Thus on those battlements so toughly contested against tremendous odds, where the crescent and the star had proudly floated, the Russian eagle eventually fluttered in the breeze.

Thus rounding off events, however, I have, from an historic point of view, anticipated them by several months, for it must be remembered that the *Manchester Guardian*, the *Scotsman*, and myself were, when this leap into futurity was made, just starting from Kars, *ensemble* to join respectively the Russian and Turkish forces in Europe. Let us hasten, therefore, to renew the thread of our narrative.

It was our second night out; we had travelled since dawn on our return from Kars to Erzeroum. As we rested under the shadow of some overhanging rocks, the fertile valley below—for we were now at a great elevation—looked like a many coloured Turkish carpet spread out before us, and with the assistance of a map and compass we were glad to find that our route for some distance lay in that promising direction, and still more so that at no very great distance we could see through our field-glasses a village, probably some six or seven miles off, about which a thin thread, like a tributary of the Araxes might be seen winding. Indeed, this last discovery acted as a special impetus to push forward. Suffice it to say, in course of time we reached the main

stream, the Araxes itself, so glorified by Xenophon, and so enjoyed by us as we bathed in its cool inviting depths, quite innocent of the innumerable water snakes which are said to abound there. Coming within touch of a luxury so seldom met with in our travels, the temptation was too great; we could not resist it.

But, O ye gods, that dip! The penalty we had to pay for cleanliness! It came with a vengeance, and we were not prone, from that time, to wonder at the native antipathy to water.

Of course, to be able to *wash* was a blessing only to be enjoyed at such very rare intervals, that the various animalculæ which owed their existence to us, lost their cunning in a few days, and after a night or two of "khan life" became, even to Britishers, quite endurable. Not that the irritating armies make for "fresh woods and pastures new"; far from it. They, so to speak, seemed to ruminate upon the dusty humanity they had so recently and so vigorously attacked. But oh! what "a change comes o'er the spirit of their dream" when the traveller has availed himself of his very exceptional chance of a dip. With a clean, clear course before them, fresh, healthy (muscular) undulating pasture lands on which to graze, it may be faintly imagined—only faintly—on putting on one's clothes again what an *awful* condition of active operation at once commences—maddening titillation would hardly be the term for it.

As time wore on, every moment brought us nearer to that haven where the rest and refreshment we so much needed were, we hoped, to be found. So, hungry as hunters, we hastened forward, past tobacco plantations, fields of corn and other grain, now all churned into a muddy conglomerate by the artillery and cavalry which had evidently but recently preceded us, till at length, with a weary sigh of relief, we gained the long-looked for village.

Strange! No barking of dogs announced our arrival—no open-mouthed natives came out to stare—no village idiot came with his incredulous glances to scrutinise us. No; not a sound. All was quiet as the grave, for not only was the village a deserted one, but one that had been completely ransacked by Cossacks, who had left behind many traces of their cruel passage through it.

There is a silence far more intense than that of the desert itself. A sea of sand provokes no suggestion of active life, but a village in peace times, with its merry hum of children's voices, its cocks, hens, ducks, oxen, sheep, goats, and barking dogs, is so much a centre of vitality, that this one to us seemed the very acme of desolation.

Here was a predicament for a *posse* of hungry men, made more ravenous by sheer anticipation of a meal; for only having here and there by the way obtained insufficient scraps since we started, we were now in an almost famishing condition. Two of our guards at once galloped off to scour the neighbourhood, and after a considerable time returned with two small loaves of black bread, secured—goodness knows how!

Hungry as these two brawny guards were, their sense of honour was curiously strained. They would not, either of them, probably have had any scruples about cutting a throat or robbing a traveller—brigandism seems innate in these regions—but to touch a crumb by the way under those circumstances was impossible; so the two loaves of black bread were brought intact and laid at our feet. These we divided amongst those guards, the arabaji and Johannes; our *three* selves and Williams dividing a small pot of Liebig's Essence of Meat (our last) into equal parts with a penknife, from which we convinced ourselves we'd gained sufficient sustenance to hold on.

"The way," however, was not only long, but "the wind was cold" that night as we dragged along wearily; and as the light merged into darkness and we rode up hill and down dale, through mountain fastnesses and forest glades, nature began to assert herself unpleasantly in connection with that vacuum she is said to abhor. Nor was this all, for a dense fog having risen, we found ourselves utterly at sea as to our whereabouts, and beyond the fact that we were in a neighbourhood where skirmishing Cossacks most probably might be, and where Kurd robbers most certainly were, we knew nothing; for some time we had lost the beaten track, and all we could realize was, that we were ascending higher and higher in an unpleasantly vague way, the sound of a swollen water-course past which we had come becoming perceptibly fainter and fainter still as we ascended. Holmes' horse at last breaking down from sheer want of food and having to be led, and the one Johannes rode rapidly becoming more or less in the same condition, we decided to make a halt and go no further that night. Thus, exhausted, hungry, and wet through by the heavy dews in which we were enveloped, we were indeed all round in a miserable condition; to convey an idea of which I cannot perhaps do better than quote a description of what followed, contributed by myself to the pages of—but no, the curiosity of my readers must be gratified a month hence, when the story I have to tell will, like old wine, be the better for keeping.

(*To be continued.*)

The Mobilization of the Fleet.

By REAR-ADMIRAL P. H. COLOMB.



IT is common to speak of the fleet mobilized this year as not only the most powerful, but also the most numerous ever assembled in our home waters. Most powerful is a relative term, and we may rightly apply it if our reference is to fleets of the past. But to use the term thus makes us put forward something of a platitude, as, practically, a fleet assembled in one age is, *ipso facto*, more powerful than one assembled in an age past and gone. The year 1856 is as far from us in respect of naval change as the year 1588 was from 1793. It would have been a platitude for Lord Howe to speak of his fleet as more powerful than that of Lord Howard of Effingham; and it may be much the same to compare the present fleet with that which assembled not only to swell the peace rejoicings at the close of the Russian war, but also to give a gentle hint to Europe generally that we were not at all breathed, but, in fact, only just woke up, and ready to begin. But as to numbers, my impression is that we are now nowhere as compared with the 1856 fleet. I write while unfortunately cut off from most sources of reference, but my recollection is that there were 26 steam sail of the line, some 40 to 50 steam frigates and sloops, and 120 or 130 gun-boats. Unless we are to count in the torpedo-boats—which would hardly be fair—the actual numbers were much greater thirty-six years ago. But, then, if we take numbers reasonably, and remember that the 1856 fleet was a serious demonstration, to effect which great and exceptional efforts had been made, and that the fleet assembled to enjoy the gale of August 3rd was a piece of routine exercise, we experience quite an awakening; for 20 battle-ships, 9 first-class, 14 second-class, and 6 third-class cruisers, with a swarm, amounting

in all to 26, of odds and ends, from the 6 coast-defence ironclads to the 15 gun-boats, is really a great fleet to assemble at home, while maintaining intact our full establishments abroad. Then, if we remember the series of almost insuperable emergencies which surrounded the assemblage of anything larger than usual in the way of fleets thirty or forty years ago, the struggles, the pressure, the doubts, and the dodges by which the object was then accomplished, and contrast it all with the quiet, smooth-flowing arrangements of to-day, we feel that the world has gone round since that time. It is, no doubt, perfectly true that a long warning has been given before this fleet was assembled, and well-informed critics in the Press have drawn very proper attention to the fact; but I do not think this has such an important bearing on the matter as might appear on the first glance. Unquestionably, it has had a bearing on the selection of the ships which were to assemble at Spithead, inasmuch as we may assume that long ago those ships which it was certain could be got ready have been pushed on, while those ships which it was pretty certain could not be completed in time have been allowed to lie behind. No doubt, also, the long warning has enabled selection to be made with regard to the number of Coastguard Reserve to be embarked, and also as to the posts from which they were to be drawn. But all this is more beside the main question than may be thought. The main question is, not how much reality or the reverse there may be in the present partial mobilization of our naval forces, but are we really on the improving road or not? Does this mobilization represent real processes, or is it a theatrical sham, of which the importance consists, not in its being an exercise, capable of being again and again repeated, each time with greater ease, celerity, and smoothness, but in its outward effect upon the mind of the public at home and abroad?

To my mind, the process has been a real one, which, under a stable Government, leading and not following the voice of the multitude, should be capable of continuation and improvement until the navy has attained a sufficient level in force, and until that part of it which, for economical reasons, is kept in reserve, will be ready to join the force already in commission in a time sufficiently short to meet any sudden combination of possible enemies. I am far from believing that we are near these levels now, but I aver my belief that this year's mobilization is an upward step towards them.

The levels to be arrived at mean that we shall have always in

commission a navy of sufficient strength for our peace requirements, and in reserve a navy of sufficient strength for estimated war requirements, according to the reasonable probabilities of political combination as against this country.

There is no necessity to be extravagant over it; we need not be ready to meet the whole world in arms at a moment's notice, but while we are fully prepared to deal instantly with a probable combination, we should not forget that possible combinations may rise to the rank of probability after war has gone on for a little time. We might, after engaging in war with one or two enemies at sea, have as good a chance of strengthening ourselves by alliances as those enemies could have, but we ought not to calculate on a better chance.

To deal with a probable combination at a moment's notice is the aim typified in this year's mobilization, and it presupposes a sufficiency of ships in reserve so complete as to be ready to proceed to sea a few days after the men and officers embark. But if so, then there must be a proportionate number of officers and men in reserve still more ready than the ships are. If there is anything really hollow in the present mobilization—anything, that is, in which expedients have been resorted to to make up for deficient arrangements, anything, in short, which ought not to be a part of the regular process of mobilization, I think it must be in the way the officers are got together. There are not nearly enough in reserve in the first instance, and it would hardly be possible to tell them off to their ships in time to meet a real emergency. Some Governments are naturally slow to make revolutionary changes in the navy, and when a Government of an opposite tendency steps in and makes changes which have not been sufficiently considered, and are found to work ill, all succeeding Governments hope against hope that matters may right themselves, and are loth to make violent changes back again. Some years ago, a novel view of the characteristics of an efficient and sufficient navy held sway. Contrary to all the experience of the past, it was assumed that an efficient navy could not exist unless the ships were in constant employment at sea. Then the corollary followed, that without unduly trenching on the resources of the country, it would be possible to maintain at sea in peace time a navy sufficiently large to meet the probable requirements of war. The truth was, no doubt that, a navy continually in commission and at sea would be most efficient, but then, it would not be possible to have a sufficient navy so treated unless the resources of the country were most

unduly trenched upon. This part of the question was so far forgotten that the attempt was made not only to possess this efficient and sufficient navy, but to have it at decreased rather than increased cost. These ideas are just twenty years old. They have now wholly disappeared, but their mark has been left in the deficiency of officers and in the great disinclination of successive Governments to admit frankly that if there is to be a full reserve of ships, there must be, to make them a reality, a full reserve of officers. In one rank the pressure came even in peace time. A few years ago it was ascertained beyond any manner of doubt that there were not enough lieutenants and sub-lieutenants, even for ordinary peace requirements; and the entries of cadets were ordered to be increased. But it takes about nine years to make a lieutenant, yet only a few months to make the ship in which he is wanted to serve. We shall not begin to reap the advantage of the increased entry till 1891. But then we can only calculate on a supply of lieutenants and sub-lieutenants equal to our peace requirements; and the short supply for war purposes—the absence of reserve—is common, and deliberately made common, to all ranks in the service, except, perhaps, that of the engineers. We officer our present mobilized fleet not on the plan by which we man it but, except, perhaps, in the case of captains and commanders, by methods of pure expediency. We have gone out into the highways and hedges for officers, and even then have been obliged to eke out the supply by placing persons of totally different ranks, education, and antecedents, into similar positions as if there were no anomaly developed in so doing. The answer is clear enough. It cannot be helped. The navy is in no single rank—except the engineers—officered so as to be prepared for these mobilizations, and the present numbers cannot be fitted into any scheme. While the store of men—that is of the ordinary combatant blue-jacket or marine—makes at least an approach to fulness after peace requirements are met, the store of officers has run short even before the door is opened. Let us glance for a moment to the Navy List for July, and for August as specially issued in respect of the mobilized fleet. There are found in the July Navy List fifty-two midshipmen whose seniority dates in 1886, that is to say who may become sub-lieutenants next year and lieutenants, if all went well, in 1892. Those fifty-two officers represent the full supply available to meet a year's waste of the lieutenants' list, which, in fact, it cannot do. The steps which have been taken

to remedy the evil are seen in the midshipmans' list for 1887, which reaches the number of ninety-one, and then there are eighty-seven coming on in the year following. The supply is calculated not only to maintain the list of lieutenants at a peace standard, but to bring it up to that standard which it now falls a good deal below. While we must not lay too great a stress on the fact, the shortness of the supply of lieutenants for the mobilized fleet is indicated by the number of officers not lieutenants who are doing lieutenants' duties, and by the numbers "lent" from other ships. Thus many of the first and second-class cruisers, which do not in their normal state carry commanders are now carrying them in the mobilized fleet in place of senior lieutenants. There are about eleven ships so treated. Most of the torpedo-boats are commanded by lieutenants, but there are nine commanded by gunners and boatswains, warrant officers of entirely different status, junior in rank to sub-lieutenants, and who are consequently deprived of the support of officers of this rank which the lieutenants in command enjoy. In both these cases we cannot say that the pressure on the lieutenants' list is the sole cause of the appointments. There is a great deal to be said for making the commander a permanent second to the captain in at least all the first-class cruisers, if not in the larger cruisers of the second-class, but still the want of lieutenants is the chief reason why we find both senior and junior officers doing duty in their room.

In the same way, we can speak of the large number of lieutenants "lent" from other ships to take their places in the mobilized fleet. Though the fact is an indication of the shortness of the lieutenants' list, it is not that alone which has produced the condition. These lieutenants come chiefly from the instructional ships, the harbour depôt ships, and the troopers. It is, under the circumstances, quite a natural thing that as the men are almost wholly withdrawn from all these ships to go to sea for the manœuvres, and that as during the manœuvres there will be practically no instruction going on other than that on board the mobilized fleet, the officers should follow the men. So there is not a word to be said as to the removal of the captains and commanders from the stationary ships and the troopers for the time. It is done under no kind of pressure, for there is a fair store of captains and commanders, ready and willing, on half pay; but with the lieutenants it is not so. Behind those now afloat there is no reserve whatever. The case is similar with the medical officers.

The considerable numbers "lent" to the mobilized fleet is not in itself an indication of pressure, as the officers are following the men; yet if we turn to the July Navy List and observe that when the fleet was ordered to be mobilized, there were hardly any medical officers not already employed, we see that not alone convenience, but pressure also, has had a hand in producing so many medical officers "lent" to the mobilized fleet. In a less degree this is the case with the accountant officers. I put it in a less degree, not because the proportionate number of officers in those ranks are any greater than in the other, but because while the accurate keeping of the accounts of the ships, and the accurate record of the receipts, issue, and expenditure of stores, is very necessary, it is evident that a fair accuracy could be established without any elaborate machinery, and the "accounting" could be managed temporarily in every ship without any regular accountant staff at all, and without in the slightest degree militating against the sea-keeping and fighting efficiency of the ships. It must not be forgotten that in a real emergency the "lendings" now permissible would not be so, as all the machinery for raising and instructing men must be kept in full work.

A great deal has been said in the lay Press on the supposed deficiency of engineer officers, but speaking on information quite open to the public, going, in fact, no further than the July Navy List, I hold it plain that this is the one branch of naval officers reasonably treated in view of mobilization.

A word or two of explanation is very necessary here, as otherwise most important questions now in considerable agitation may not be understood: when we hear of the shortness of the engineer supply it must be observed that there is a double question involved. Some authorities think that there should be on board our ships considerable numbers of engineer *officers*, who should not only possess all the educational and official status necessary to support a high relative rank in the naval hierarchy, but should be also skilled artisans: workers in moral force, in theoretical intelligence, and in handicraft. Other authorities think that it will be better in our ships to have a very few engineer officers of high educational and official status, and that under them should come a good supply of practical mechanics, trained not only as handicraftsmen and managers of steam engines in motion, but trained also to manage small numbers of men in subordinate posts. It is no part of my purpose here to hold the balance between these different views, but it is necessary to point

out that very often when we hear of the short supply of engineer officers, the complaint comes from those who are advocates of the former policy, and their meaning, if probed deeply, might be found to be, not that the supply was short, according to establishment, but that the establishment itself was wrongly framed.

That is one point which must be borne in mind. The other stands as follows:—It is obvious that in a navy which must consist, first, of ships fit to fight, and secondly of men fit to fight in them, the ideal of a reserve must be a ship ready to receive her crew, and a crew ready to go on board the ship. As the ship approaches completion, her full complement of officers and crew should also approach completion, and on the day when the ship receives her certificate of competency to receive her officers and crew these should all be nominated to her, and should know that they are so. Now as regards captains, commanders, lieutenants, sub-lieutenants, medical and accountant officers, it cannot be said that the ideal is at all approached. It is so, however, in regard to the navigating officer, and the three warrant officers, gunner, boatswain, and carpenter. These officers are actually appointed to, and serve on board of the ship in reserve, and are incorporated with the sea-going crew when it arrives. Practically, then, the supply of these officers depends upon, and is bound to follow, the supply of ships which could be sent to sea.

And the ideal is even more closely followed in the engineer officers. Not only is a proportion of these officers appointed to and serving in every completed ship of the reserve, but the name of an engineer officer will be found attached to most ships in reserve of which there is any probability of their being fitted for sea, and the name of the senior engineer officer will commonly be found attached to the ship both before that of any officer except the carpenter, and long after—from the incomplete condition of the ship—the name of every other officer has been withdrawn from her. Therefore we may say without much hesitation that according to the establishment of officers now apportioned to ships, the supply of engineer officers is the last which demands our consideration, for it most nearly approaches the ideal.

Let me take a ship or two at random. The *Hero*. When ordered for mobilization she required a captain, a commander, and four lieutenants; an officer of marines, at least one medical officer (a very short supply for 290 men), two accountants, and two sub-lieutenants. But she did not require any navigating officer, for there was one serving on board; any engineer officer, for there

were three serving on board; nor any gunner, boatswain, or carpenter, for they were all permanently attached to the ship. The *Inflexible*, in like manner, wanted the full supply, including seven lieutenants, mentioned above. But she had her navigating and warrant officers already on board, as well as three out of the five engineer officers now serving in her. The *Medusa* required a captain, two lieutenants, one sub-lieutenant, a surgeon, and a paymaster, to complete her for sea, when the order was given to mobilize, but did not require any navigating, engineer, or warrant officers; they were all on board, as part of the crew in reserve.

Before parting with the subject of the supply of engineer officers, I might anticipate a possible question with regard to the large number of young engineer officers—chiefly “acting” officers—who appear as “lent” to the mobilized ships. In one way, these officers are in the same plight as the “acting sub-lieutenants” who also appear as “lent.” They are officers who are completing their education, and temporarily withdrawn, chiefly from the Naval College at Greenwich, to serve with the fleet. But the similarity ends here, for while the sub-lieutenants embarked are below the proper numbers required to make the ships thoroughly efficient, the young engineer officers are in excess, and are either found in the fleet simply for practical training, or in place of the skilled mechanics spoken of above, of which the supply is not yet normal.

Neither the skilled mechanic nor the ordinary stoker is difficult to supply. The former may turn out a trifle more expensive than he is at present, but so long as we maintain our great steam factories we hold a school under our control that can always be utilized.

I have no reason to doubt that the complaints current as to short supply of stokers are exaggerated. Even were the supply as short as made out, it is a defect easy to remedy and not overwhelmingly costly. The stoker is already highly paid, considering the class from which he is drawn, and the very small cost at which he lives when serving. It is really only a question of recruiting in the right places and at the right times, and in no aspect of the question can it be considered a great one. The best information at my disposal puts it that about 3,000 stokers were required for the mobilization, and that that number was forthcoming. It must be remembered that, like the engineer officers, the stokers approach the ideal, as a cadre is always found attached to every ship in the reserve. If the stoker complements

of the mobilized ships were separately examined, I suspect it would be found that a deficiency in the complement of one ship would be met by an excess in another, for the distribution cannot be made or kept absolutely even, owing to men falling sick on one side and returning well on the other.*

But while this can be said for the present mobilization, I do not think that the stoker question either ought to be, or is, lost sight of. As an essential part of naval organization, we are as much called upon to provide reserves of stokers as of men more directly to be engaged in fighting. Any shortness which now appears in the reserve may be assigned to our long clinging to our masts and sails, so that though we are drawing abreast of the circumstances of the time, we may still appear somewhat behind them. But the public ought not to lose sight of the question that though steam power has greatly risen as an element of naval efficiency, stoking power has not risen *pari passu*. Two shovels full of coal will now produce as much steam power as five would formerly do. The *Achilles*, as an old ship, heads the navy with 5,000 horse-power to her 9,820 tons of displacement. A little farther on we have the *Anson*, a new ship with 11,500 horse-power to her 10,600 tons of displacement. But it does not require twice as many stokers in the *Anson* as in the *Achilles*. On the contrary; we might possibly double the horse-power of the *Achilles* and find, when we had done so, that she required a smaller complement of stokers than she did with half the power.

It must be understood of the partial mobilization now undertaken, that a real one on an emergency would be a much more simple affair. The warning given—of which so much is made in a sense adverse to the Admiralty plans—may be said to have been mostly absorbed in cutting and contriving so as not to touch the main reserves at all, and to touch the first reserve—the coast-guard—as little as possible. Given an alarm of war, and, as I showed in a paper read before the United Service Institution in March 1888, and it is only necessary to telegraph the one word “Mobilize,” to send a superabundance of men to the ports. The task of the Admiralty this year has been to do a great deal more than was done last year, not by opening the reserve stores of *personnel*, but by a better and closer organization of the present use stores. It is, perhaps, scarcely noticed that only fifty ships of all classes were mobilized last year, in addition to those already

* Since writing the above, Lord Brassey has published in the *Times* a valuable and authoritative statement in support of the text.

in commission, while, practically, ninety have been so treated this year. I believe the officers and crews required last year came to about 8,600, while this year very nearly 14,600 have been required.

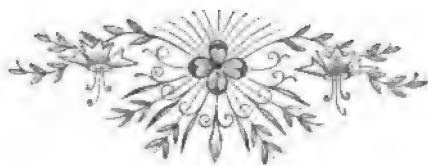
To my mind an ideal arrangement for our navy would be its organization in three great divisions, Portsmouth, Plymouth, and Chatham. If it were so, the distribution of the *personnel* and of the ships would go hand in hand, and each of the three commanders-in-chief would be bound to watch and report, so that every ship in reserve and ready materially should also be ready personally, officers holding their appointments, and men organized in ship's companies; so that each port should have of all ranks what is wanted, and no more. The ships as built would be transferred to the port where vacancies occurred, and ships and men would always be regarded as the complements one of the other, and inseparable. I believe we are coming to this ideal in an even way, if at a slow pace. But probably no outsider can do more than guess at the excessively intricate and arduous task which must have devolved on the Admiralty this year in fitting ships, officers, and men together without the margin to play with, which any calling out of the reserves would have put into their hands.

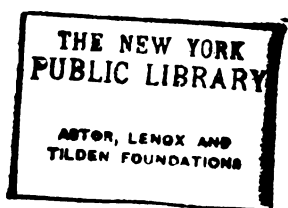
The position may be best contemplated by considering how mobilization went on in the three divisions of marines and the marine artillery. For every mobilized ship a proportion of these forces was required, but the colonels commandant could have had no sort of difficulty in providing them, for men and officers were on the spot together, and under their control. Presumably, a forenoon would suffice to frame and issue the orders and nominal lists. Not so the naval commanders-in-chief, though with the men a good approach to system has been made. But it can readily be seen that the work at the Admiralty must have been enormous, as though each port may have had its proper supply of men, it did not follow that every man was exactly the right kind. Portsmouth might quite possibly have twenty carpenter's mates, while Plymouth had forty, but wanted fifty leading seamen. Chatham might have had thirty second-class petty officers too many, and twenty plumbers too few; while Portsmouth wanted twenty second-class petty officers, and could spare ten plumbers; while Plymouth wanted the remaining petty officers, and could supply the remaining plumbers. These things exist because we have not yet quite fitted ourselves into our new clothes; but for the time they entail

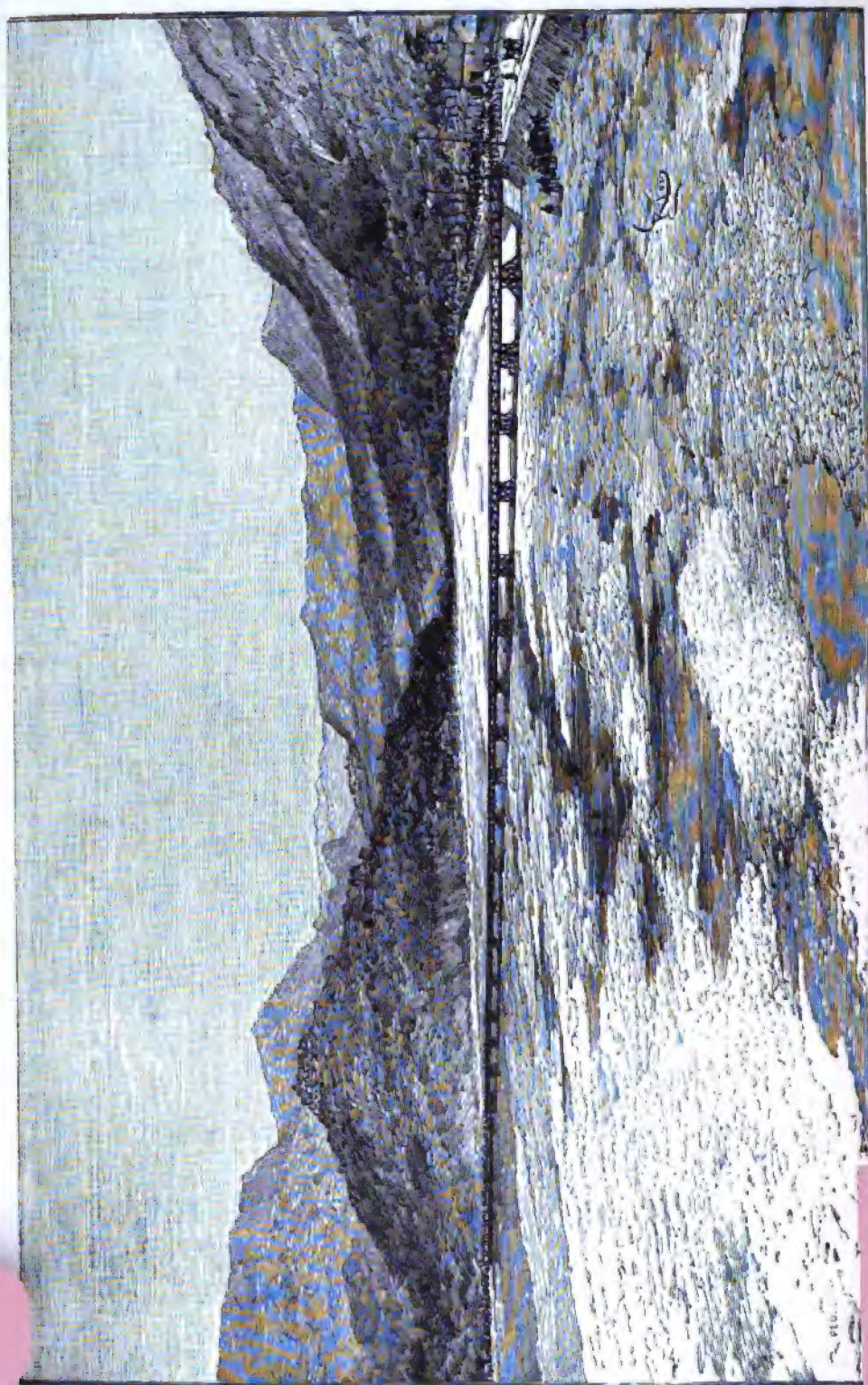
more thought and work than would be necessary in a real emergency, where all things were open and all margins available.

The strong feeling I have in all this is that we are continually progressing in the right groove. Last year's experience has enabled us, without more apparent effort, to do nearly double what we did last year ; and next year, if all goes well, we may hope to nearly double it again.

These annual exercises show us, as nothing else would, where we are weak, and it is evident that the intention is to correct our weakness wherever we find it. Loyal work in all departments, we should say, was the keynote of the present position. We must, unquestionably, credit the Intelligence Department as the agency most immediately and directly concerned in the result. But it is perfectly evident to anyone who chooses to examine for himself and consider, that there must be a wonderful harmony in all departments ; in the Power above the Intelligence Department, in the Co-ordinate Departments, in the commanders-in-chief at the ports and their staffs and captains, in order to have produced the excellent result represented by the mobilization of the fleet of 1889.







BRIDGE ACROSS THE VAL.

Notings from the Foreign Press.

IS RUSSIA PREPARING FOR WAR?—The *Internationale Revue über die Gesammten Armeen und Flotten* is of opinion that Russia has been silently making preparations for war ever since the Treaty of Berlin frustrated her ambitious schemes. Up to 1886 these wore a defensive character; but since the dethronement of the “Battenberger” and the Seryo-Bulgarian War her armaments have been directed against Germany and Austria-Hungary. In point of fact, Muscovite statesmen perceive, like other sensible persons, that a crisis in the fate of their Empire is fast approaching. Is Constantinople with the Bosphorus and Dardanelles—the “keys of her own house”—to fall into the hands of a newly-constituted power or to lapse once for all into their possession? This question, it is pointed out, must eventually be settled on the plains of Central Europe. It is absurd to blame the Russians for coveting the straits which form the natural outlet for her trade, though it suits not the policy of Western Europe to permit their absorption. This being so, we commend to the attention of our readers this article. The following are the principle measures which have been adopted by Russia during the past decade. Soon after the Peace of Berlin, the infantry regiments were augmented from 3 battalions to 4 throughout the army. In addition, 96 reserve cadre battalions, of 5 companies each, and a peace-footing of 560 men, were constituted. On mobilization each of these battalions would be expanded into a regiment consisting of 4 field battalions and one dépôt battalion. The peace establishment was, therefore, increased at a stroke of the pen by 152 line and 96 reserve battalions, the latter expanding to 384 on mobilization, exclusive of the dépôts. Later on, the whole of the line cavalry were converted into dragoons, and the strength of each regiment augmented from 4 to 6 squadrons, which added 104 of these units to the army. In 1887 the number and force of the Reserve Cadre Battalions were increased, and the reserves called out for the first time, when it was discovered that the men remembered their drill, but had totally forgotten everything which called intelligence into play, such as taking advantage of cover, fire-discipline, &c.

&c. In the same year, though 11 cavalry divisions out of 17 were quartered in the districts of Warsaw, Wilna, Kieff, and Odessa, the 13th Cavalry Division was advanced from Kazan, in the Moscow district, to Lublin, close to the Galician frontier. Behind the impenetrable screen afforded by the frontier troops these movements are effected unknown to the outside world, and are not generally announced till they are accomplished facts. The new law of July 4th, 1888, shortened service with the colours from 6 to 5 years, but lengthened the stay in the reserves from 9 to 13, with the result that 18 annual contingents are at the disposal of government instead of only 15. Each annual contingent gives 250,000 recruits, so that after the usual deductions, 700,000 more trained men are available for mobilization than before: this distinct advantage being gained that, in the thickly-populated regions of the West, where the army is concentrated, the various cadres can be rapidly brought to a war strength from the reserves of the surrounding districts. An *ukase* of January 12th last prescribed the reorganization of the 24 rifle battalions of the Guard and Line into 24 regiments of two battalions, an operation which called into existence 24 new battalions. These are formed into 6 brigades, and the *Grashdanin*, at the time of King Humbert's visit to Berlin, let out that it is intended, ere the close of the year, to raise these brigades to the strength and name of divisions, with a proportionate number of guns. Six divisions of rifles may therefore be reckoned upon in the event of war. To relieve the Field Armies from garrison duties, forty reserve cadre battalions and sixteen batteries have been told off to the fortresses Warsaw, Kovno, Brest-Litovski, and Ivangorod. These, in time of war, would be expanded into 160 battalions by incorporating the *Opolichenie*, or militia, of the surrounding districts, and would furnish 160,000 men sufficiently trained for garrison work. As regards transport, 5 battalions of Military Train, each containing 18 companies, supply on mobilization the necessary vehicles for 90 divisions of infantry. On the 12th November last the Kharkoff military district was disestablished, the troops being transferred to the Kieff and Moscow districts, where they are more available for a war against Germany and Austria; the 2nd division of infantry was taken from Kazan to Brest-Litovski; the 19th division belonging to the 2nd Caucasian Corps, which has been broken up, was advanced from Stavropol to Balta in Podolia. Thus two-thirds of the active military strength of Russia are now quartered west of the Moscow-Orel-Kharkoff-

Nikolaëff line of railway. These forces are at present distributed into three armies: the Northern, the Western, and the Southern. The last-named of these, when mobilized, will comprise 5 army corps of three divisions each, 1 division of rifles, and 5 of cavalry; and should circumstances permit, it will be joined by 4 divisions of infantry and 2 of cavalry from Odessa. The Western army will muster 5 army corps, or 15 divisions of infantry and 5 of cavalry, ready for an irruption into German or Austrian territory on or before declaration of war. The strategic lines of rail *via* Moscow - Smolensk - Brest-Litovski (double), and Orel - Mozyr - Brest-Litovski, will hurry to Poland the troops from the Moscow and Kazan districts, raising the Western army to a strength of 27 infantry and 7 cavalry divisions. The Northern army consists of the troops stationed in the Wilna district, which on mobilization will in like manner be supported by arrivals from St. Petersburg and Finland, till 21 infantry and 6 cavalry divisions have been accumulated. Russia has thus in her western provinces the enormous total of 69 infantry and 20 cavalry divisions, showing an increase within one year of 17 infantry and 4 cavalry divisions. The operation of pushing westwards has not yet ended; and it is stated that, in addition to the estimates of 1888-93, which amount annually to the prodigious sum of 211 million roubles, the Minister of War has had placed at his unreserved disposal an indefinite sum, the *ukase* to this effect having been signed in May 1888, but not made public till a year later. With unrestricted financial powers, and behind the screen afforded by a close frontier, General Vannovski can secretly muster his countless bands till the time is ripe for their employment.

THE NEW INFANTRY DRILL.—The same periodical criticizes our method of forming battalion square from line as extremely clumsy and dangerous. It is well known, asserts our contemporary, that at Quatre Bras the French cavalry in several instances broke into the rear of squares before the flank companies had time to form the rear faces. The writer is also somewhat scandalized at the regulation which forbids a line officer to take command of the Guards, though we are of opinion that he has failed to grasp its real significance; and surely his reading of history is at fault when he states that in virtue of these regulations several line companies were not permitted to join the attack of the Guards at the Alma!

RUSSIAN RAILWAYS.—The *Jahrbücher für die Deutsche Armee und Marine* has an article on the weighty subject of the "Railways of the Russian Empire: their Significance in War-time and Develop-

ment since the Crimean War." The first railway in Russia, constructed in 1837, connected St. Petersburg with Tsarskoe Selo. Then came, in 1842, the line between the two capitals, when Nicholas, to settle conflicting interests, took a ruler and drew a straight line from one city to the other, telling the parties interested that the new railroad would follow a similar course. Then, from mixed strategic and commercial motives, St. Petersburg was united with Warsaw; Moscow with Nijni Novgorod, and Sevastopol; Orel, the centre of the "black earth zone," with Libau on the Baltic. The Crimean war had instructed Russia that what had, in the times of Charles XII. and Napoleon, been her strength—viz. the immense extent of her territory—was now a source of weakness. Her railway system was scarcely developed at the outbreak of war with Turkey in 1877, and was far from yielding satisfactory results. Four different gauges are employed in Russia, and that used on the line which ends at the river Pruth did not coincide with its prolongation to Jassy on Roumanian territory. This section had, therefore, to be adapted to the Russian rolling-stock by laying one additional rail. The tracks were single, and the stations far apart, so that the Russian "strategic advance" was much delayed. The rolling-stock and permanent ways were in a wretched condition, and it is doubtful even now, as the catastrophe of Borki seems to prove, whether they have improved. In transporting the Russian armies to the Danube in 1877, there were no less than 289 cases of trains leaving the rails, and 250 collisions, in which 484 men were killed and 958 seriously injured; in addition to which 281 locomotives and 1,422 carriages were damaged or destroyed. All difficulties in connection with the employment of naphtha as fuel have not yet been overcome. In order to escape the necessity of appointing foreign officials (who are mostly Germans) on the various lines, schools to train Russian subjects for the railway service have been established since 1869.

FIRESHIPs, POWDER-VESSELS, AND OBSTRUCTIONS DURING THE CIVIL WAR.—*The United Service Review* of Philadelphia remarks that fire-ships are, excepting only the sword, the most ancient offensive weapon in the history of naval warfare. From the siege of Tyre, when the inhabitants sent fire-ships against the Macedonian conqueror's gigantic mole, down to the last Chinese War, they have held their ground while other weapons have fallen into desuetude. Greek fire made them effective till superseded by gunpowder; they played a striking part in the discomfiture of the Spanish Armada, and lent additional terror to the sanguinary

wars between the English and Dutch in the times of Cromwell and Charles. The abundance of inflammable material in the Southern States of the American Union, together with the swiftly flowing streams which intersect them with a network of waterways, suggested the employment of fire-ships and obstacles on a large scale, during the Civil War, against maritime attacks. They were usually flat-bottomed "scows," filled with logs of pine, and having pitch or turpentine poured over them; or else rafts, piled up with bales of cotton, were employed. This method of attack was not very successful. On one occasion a fire-raft was pushed by a steam-tug against the *Hartford*, Admiral Farragut's flagship, setting her on fire; but a well-aimed shell exploded the tug's boiler, killing all on board, when the ship disengaged herself and succeeded in extinguishing the flames. The *Louisiana*, an old steamer laden with 215 tons of powder, was exploded within a few hundred yards of Fort Fisher, near Wilmington, without causing any visible damage to the structure. Obstructions placed athwart fairways, whether consisting of piles, crates filled with stones, booms, sunken vessels, or entanglements of cables, were always broken through in the long run, and now-a-days are still less likely to stop the advance of hostile ships. The cable entanglement, however, with loose tags of ropes to catch the screw-propellers of the enemy's vessels, seem adapted to modern requirements. The most formidable boom ever constructed was that placed across the Mississippi for the defence of New Orleans in 1861. It was, however, destroyed on the night of the 20th April 1862, though a torpedo had been discharged in vain against one of the hulks which support the barrier. Captain Caldwell boarded it, and slipping the anchor, charged the connecting chains and broke through. The writer draws the conclusions that such obstacles are costly and seldom repay the attendant expense; vessels sunk in the tide-way do not long block the channel; the heaviest booms and piles will be easily demolished by modern explosives; if resorted to they should be anchored diagonally across the stream, in order to deaden the force of a ramming blow.

The same Review contains a description of the capture and trial of MAJOR ANDRÉ. It will be remembered that that gallant officer was in civilian clothes when taken prisoner outside the British lines at New York, thus incurring the fate of a spy. A British man-of-war had put him ashore from the Hudson River, in order to arrange with Benedict Arnold for the surrender of West Point,

but a gun having been trained on the *Vulture*, she was obliged to drop down stream; and unable to return on board, André fell into the hands of the Americans while endeavouring to make his way by land to New York. The sentence of death passed on him by a Court of General Officers (among whom was La Fayette), was confirmed by Washington, and the time of execution fixed for noon on Monday, the 2nd October 1780. His fate, we are told, excited universal sympathy among American officers, their chief himself being merely actuated by a strict sense of duty. "Indeed," continues the writer, "Washington and André deserve equal honour; André for having accepted a terrible risk for his country, and borne the consequences of failure with unshrinking courage; and Washington for having performed his duty to his own country at a great sacrifice of his feelings." La Fayette writes, "All of the Court that inquired into his case were filled with sentiments of admiration and compassion for him. He behaved with so much frankness, and courage, and delicacy, that I could not help lamenting his unhappy fate. It is impossible to express too much respect, or too deep regret for Major André." This being so, it is hard to understand why Washington and his counsellors did not see their way at any rate to saving their victim from the gallows, and we are glad to read that the author of this article is of the same way of thinking. There can indeed be no doubt whatever that a volley from a section of infantry would have met all the requirements of the case. A certain amount of gall must have mingled with his executioners' sense of duty, as is too often the case in this imperfect world. André was led to the gallows. He walked arm-in-arm with two subalterns holding drawn swords. He was "pale, but calm, and his face bespoke the serenity of an approving and undismayed conscience. He was dressed in full British uniform, except sash and sword; his coat was of the brightest scarlet faced with a beautiful green, his vest and breeches bright buff." He had naturally concluded that his sentence would be commuted to death by the bullet, and on sighting the gallows he started back. "Why this emotion, Sir?" asked one of his escort. "I am reconciled to my fate," retorted André; "but not to the manner of it." He said to another, "Must I then die in this manner? How hard is my fate, but it will soon be over." He leaped on to the waggon "lightly, but with visible loathing," and adjusting the rope round his neck with his own hands, bound his handkerchief over his eyes. Lifting it for a moment, he bowed courteously to the officers round him, saying,

"All I request of you, gentlemen, is that you will bear witness to the world that I died like a brave man;" and, as if to himself, "it will be but a momentary pang." Thus perished André in his 30th year. "A sadder tragedy," we read, "was never enacted; but it was inevitable, and no reproach rests upon any person concerned, except Arnold." This verdict we could have heartily endorsed had the unfortunate officer been granted a soldier's death. Surely no more tragic episode was ever recorded on a tablet in Westminster Abbey.

"Facetious Nautical Anecdotes," and Colonel W. W. Knollys' article, "The French Army and the Revolution of 1789," which the *United Service* has paid us the compliment of reprinting from our pages, contribute to heighten the interest of this attractive number.

AN article on ALGERIA, in the *Revue d'Infanterie* exposes with some force the difficulties with which the French Republic has to deal in what is supposed to be a purely military colony. A Separatist party exists in the north, where foreigners outnumber the French, and, after the catastrophe of 1871, actually put forward a demand for autonomy, or, as the author remarks, "dropping verbal subtleties, for *separation*." Here then, it seems, we behold France in danger of losing a colony owing to the inveterate dislike entertained by her children for emigration, and it is quite conceivable that a great war, in which she lost the command of the sea, might deprive her of Algeria. The native Arabs, too, are extremely hostile to their French masters. "The Arab is our enemy," proceeds the writer, "and without displaying a sympathy with him which some might look on as treason, it is only just to admit his qualities. . . . If the natives are cunning, mendacious, vindictive and cruel, they are as intelligent as our own peasants; they entertain respect for the family and for authority, and their patriotism is more developed than among more civilized peoples; indeed, they are strong, energetic, brave, and hospitable. With them temperament gets the better of reason, and murder (as in Corsica) is often but a gesture. Robbery itself, according to the traditions of the country, is not necessarily a crime, but often an insult or act of vengeance." The decadence of the Arabs is not to be attributed to fanaticism, for in that case (argues the writer) the Protestant nations, as followers of Luther and Calvin, would be on the high road to ruin (!) It is rather the concentration of absolute power in the hands of absolute, irresponsible, and ignorant rulers which has brought about the decay of the Maho-

metan world, to whom Europe has been under such deep obligation for the advancement of civilization. The discontent of the Arab tribes is probably due to the imprudent zeal with which the trammels of civilization have been forced on them by the *doctrinaire* statesmen who now direct the destinies of France. The supreme power is no longer wielded by a single ruler of the stamp of Marshal Bugeaud, but shared by the military and civil authorities. These come frequently into collision, which encourages the latent antipathy existing between the military and the colonists. All was going well till lately—what immense progress had been made in fifty years of French rule!—and the Arabs were beginning to reconcile themselves to their lot. Now all is ferment, owing to the intemperate zeal of politicians who think they can apply their ready-made formulas to all countries and under every degree of latitude. As we ourselves have begun to find in India, the latest developments of Liberalism are surely productive of difficulty when applied to the apathetic and conservative East.

The *Progrès Militaire* speaks unfavourably of the introduction of the lance into the French cavalry, and the *Deutsche Heeres-Zeitung* seems to endorse its views. The ten dragoon regiments of the six independent cavalry divisions are to receive this weapon for the front rank. This arrangement, observes our contemporary, will render it necessary for the cavalryman to be instructed in no less than four weapons—sabre, carbine, lance, and revolver, and it is evident that the short-service system allows no time for this. Is the lance such a formidable weapon after all, it is asked, or is General de Gallifet merely following suit to the Germans in adopting it? It is a recognized principle in modern warfare that cavalry stand no chance against infantry in organized masses; the lance, therefore, can offer no advantage in attacking squares or columns, while it is urged that, as regards cavalry against cavalry, a lancer regiment at Rézonville was worsted by one armed with the sabre only. In addition, the modern French dragoon, with his brief period of service, finds difficulty enough in wielding his sabre when mounted; what then will be the state of his equilibrium when a lance in his right hand deprives him of the use of the "aids"! The inability of lancers to perform certain duties which fall to the lot of cavalry, and require the use of fire-arms, also complicates the question. Already the brigade of Cuirassiers attached to each independent cavalry division is a sufficient encumbrance (since they do not perform outpost duties), and it is now intended to increase this

nuisance by depriving the dragoons of half the men who are efficient for dismounted duty.

EVERLASTING PEACE.—On this subject the *Deutsche Heeres-Zeitung* of the 20th July waxes exceedingly wroth, more particularly with Signor Bonghi, who, as president of a "Peace Congress" which was held at Rome last May, signified his opinion that the armies of the Great Powers ought to be organized for defence only, "as if," writes our contemporary, "the best defensive did not consist in a well-timed offensive action, and as if with the 'Nations in Arms' of the present day defensive armies would be smaller than offensive ones." One deputy had the courage to propose that Italy should forthwith disarm completely, but the proposal received no support. The *Zeitung* then quotes with approbation from the *Rivista Militare Italiana* a list of *casus belli* which exist:—

France: Instability of the Government, which may result in war as a last resource against a too powerful opposition. *La revanche*.

Germany: The historical traditions of Prussia. The Pan-Germanic idea; the imperfection of the form of government, whereby war and peace depends on the will of the Sovereign. The annexation of Alsace and Lorraine, which has made France an implacable enemy. (With the solitary exception of the last item, the *Zeitung* dissents from these views.)

Russia: Panslavism. The Eastern Question. Rivality with England in Asia.

Austria: Antagonism of races. Her interests in the Balkan Peninsula.

Turkey: General decadence. Race antagonisms between the dominant and the dominated.

Roumania: The law of nationality.

Italy: The dangers of clerical reaction. The secular power of the Pope.

Spain and Portugal: The struggle for the unification of the Iberian peninsula.

The Scandinavian States: The occupation of Danish territory by Germany and of Finland by Russia.

Belgium and Holland: Their weakness, which exposes them to attack from the south and north-east.

England: The dangers which menace Belgium, Constantinople and India.

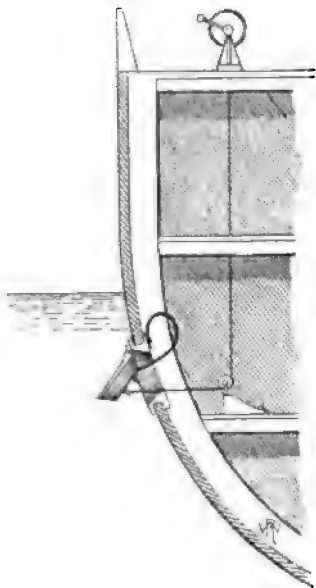
These items constitute the "inflammable material" which the

Congress think incumbent on them to eliminate from Europe. Add to them popular "cries" supplied by the Irish, Polish, and African questions, with phenomena such as socialism, anti-semitism, nihilism, irridentism, &c., &c., strong monarchical parties in the bosom of republics with republicans in monarchies, and we feel convinced that the Congress has its work cut out for it.

SHIELDS v. CLOUDS.—In the pages of the *Spectateur Militaire* a lively controversy is in progress as to the respective merits of "shields and clouds," i.e. metallic shields, of aluminium by preference, to cover the advance of a column of attack—their use would involve a return to that obsolete formation—and dense clouds to be created for the same purpose by artificial means. The writer advocates the construction of shields of chromated steel, 1 metre broad by 2 in height, to be carried in front of the column by men told off for the purpose. A plate of this metal 4mm. in thickness, as exhibited at the present moment in Paris, is bullet proof at 10 metres distance, when fired at by a hardened leaden bullet from a rifle of the Gras pattern. The shield of chromated steel would weigh 58 kilogrammes, but only 40 if made of aluminium bronze; and it is maintained that a man of average muscular strength would carry it with ease, for 40 or 50 yards, moving at charging pace. However, after the introduction of the small-bore rifle it will be necessary to increase the thickness to from 5½ to 6mm. owing to the greater initial velocity of that weapon; but, on the other hand, the use of aluminium bronze will reduce it, while, if the shield be inclined to the front at an angle of 44°, the thickness, even with chromated steel, may be safely estimated at 3mm. A hundred shields will, it is computed, suffice to cover the front and flanks of a battalion in quarter column. Artificial clouds are open to objection. Instead of concealing they indicate the whereabouts of the attacking party, while totally hiding from view the enemy's position. We do not think, however, that the writer replies quite conclusively to the advocates of "clouds," and their minute explanation of how, when, and in what circumstances the magic rosin is to be kindled. It is likely enough that there are positions in which both inventions might prove serviceable. This the champion of shields is willing to admit, but vows that on a battle-field he would prefer to stand behind one of his shields than find himself "in the clouds." We read that German enterprize has established a vast factory at Schaffhausen for the construction of cannon, rifle-barrels, masks for field-guns, and

shields for infantry, from the various alloys of aluminium, using the celebrated falls as motive power.

FIRES ON BOARD SHIP.—The *Scientific American* introduces us to a new patent for extinguishing fires on board ships. The invention provides for a series of valves, seated in the sides of the ship, below the water-line, and opposite the different compartments. These valves open outwards, and are hinged on their upper side,



as shown in the accompanying diagram, a spring being made to press against the inner face of the valve to force it outward into open position, when the valve is released. This is effected by a small cable, fastened by one end to the inner face of the valve, while its other end is carried up between the decks and made fast to a windlass above. By unwinding the windlass, the spring causes the valve to swing outwards, thus admitting the water to flood as many of the compartments as may be desired. So much for theory; but it seems very doubtful whether it would answer in practice. Suppose, for instance, that a fire breaks out in bales of cotton stowed in close proximity to the spring

which actuates the valve; and that the conflagration is not discovered, as is usually the case when it is spontaneous, till a certain time has elapsed. The spring will then have been exposed to an intense heat, perhaps for several hours, and having lost its elasticity, be quite incapable of thrusting the valve outwards. There is yet another consideration. The cable which unites the valve with the windlass on deck must either be of hemp or metal; in the one case it will be at once destroyed by the action of fire, in the second it will become red hot, thus endangering other compartments. The risk of drowning would be superadded to that of burning.

THE AUSTRIAN ARMY.—The *Rivista Militare Italiana* notes the following important changes provided for in the Austro-Hungarian Estimates for 1889:—

1. Transference of the head-quarters of the 10th Corps from Brünn in Moravia to Przemyśl in Galicia.

2. Head-quarters of a cavalry division established at Jaroslaw in Galicia.

3. Head-quarters of the 8th Infantry Division quartered at Innsprück.

4. A heavy battery attached to every artillery regiments: total, fourteen batteries.

5. Formation of another battalion in the Railway Regiment.

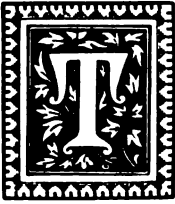
We also learn from the same source that regimental Courts of Honour have been created by Royal Decree in the Belgian Army. They consist of the lieutenant-colonel, one major, one captain, a lieutenant, and a sub-lieutenant. The major is appointed by the commandant of the regiment, but the others are elected annually by the officers of their own grade, their duties being to examine into accusations against the officers which affect the honour and good name of the regiment.

THE DEFENCE OF ROUMANIA.—The *Revista Armatei* contains a project for the establishment of special troops for the defence of the Carpathian Mountains, in imitation of the Italian *Alpini*. They would be raised from the local companies of *Dorobanti*, the semi-permanent infantry who serve six months with the colours and are six on leave. Judging, however, from the inhospitable character of these mountains, and the fewness and infamous quality of the tracks which cross them, one would be tempted to believe that the mere breaking up of a portion of the railways leading from Transylvania would suffice to protect Roumania from invasion in this quarter.

The *Week*, of Toronto, Canada, has reprinted *verbatim* an article on the "Future of Canada" which appeared in our June issue. It would have been more courteous had the *Week* acknowledged the source from which it had been obtained. This is generally done by the United States press.



A Dynamite Engine.



THE rapidity with which the art of war has changed its character during the past decade is nowhere more forcibly illustrated than in the use of dynamite for military purposes.

Scarcely three years ago the idea of using this agent was scouted on almost every side, alike by military and engineering authorities. It has now become one of the factors with which the soldier of the future will have to reckon.

We described, a few months since, the construction, so far as particulars were divulged, of Lieutenant Zalinski's pneumatic dynamite gun. We have now to chronicle the construction of an apparatus, for the discharge of high explosives, which can scarcely be called a gun, but which, it is claimed by the inventor, is fully as accurate as any existing field piece.

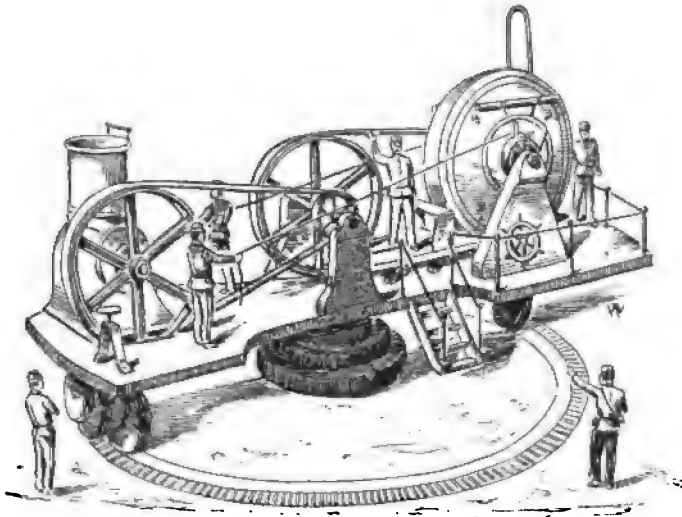
The principle embodied in this new weapon is simply that of the sling. The inventor proposes to use the enormous centrifugal force exercised by a rapidly-revolving disc as a means of propulsion, and claims that this method obviates the initial shock which has hitherto prevented the employment of dynamite, gun-cotton, roburite, melinite, and the countless other explosive compounds which have been discovered during the last few years.

In Zalinski's gun, it will be remembered, the inertia of the projectile is overcome by a gradually increased pressure of atmospheric air; but although the trials of that weapon were attended with a considerable amount of success, the range obtained was too limited to render the gun formidable against heavy artillery of ordinary construction. No doubt, if a dynamite shell struck its target, the destruction of the latter would be almost inevitable; but it is at least probable that the Zalinski gun would never be allowed to approach within range of a modern armour-clad or fort.

Mr. Walter E. Hicks, of New York, the inventor of the new dynamite engine, as it may perhaps best be called, claims that

this limitation of range does not apply to his method, and that, given a sufficiently strong disc, and a sufficiently powerful motor, he can propel a charge of dynamite to a distance not less than that which the heaviest ordnance of the present day is able to command.

The revolving carriage from which the projectiles are discharged comprises two steel wheels mounted parallel to one another upon a shaft fitted with a third pulley wheel, by means of which it is connected with a steam-engine or other motor of adequate power. The wheels, in order to bear the enormous strain to which they are subjected during rapid motion, are constructed with extreme



DYNAMITE ENGINE.

solidity at their point of connection with the shaft. This strain, it may be noted, increases with the square of the velocity.

The gun shown in the accompanying illustration is constructed to receive four charges at a time, and these may be projected in rapid succession. The projectiles are inserted in carriers or chambers shown in Figs. 3 and 4, and the latter are arranged near the periphery of the wheels at equal intervals from one another. The shells fit compactly into these carriers, and are firmly held until the moment of firing by two doors, constructed to close and open automatically. One end of the carriers is journaled in the side of the wheels, while the other is allowed to oscillate in radial slots in the wheels. The free ends of the carriers are held down

when loaded, and locked by clutch-bars engaging in teeth on their free ends. These clutch-bars are further attached to a shaft connected with the firing mechanism. At the moment of firing, the clutch-bars are released from the free ends of the carriers, which are immediately driven upwards by the centrifugal force of the projectile within the chambers, and fall automatically (Fig. 4) into recesses in the sides of the wheels. The projectiles are now free to escape under the influence of the force exerted upon them by the rotary motion of the disc.

By means of a mechanism which, if practically successful, must be regarded as one of the most striking points of an extremely striking invention, Mr. Hicks claims that he can train and discharge this machine with almost perfect accuracy. The gun, it is said, may be fired at any angle in the vertical plane; while the arc of fire in the horizontal plane is the same as in ordinary artillery. The tripping devices for two of the carriers are situated on the right-hand side of the disc, while those of the other two are placed on the left-hand side. By this means two shell may be discharged simultaneously, while the other two remain, forming, as it were, a second barrel. The four shell, therefore, may be fired in rapid succession: and since the trajectory of each is, for all practical purposes, identical, every explosion will add to the destruction caused by the preceding one.

One noticeable feature in this new engine is the perfect absence of noise with which it may be worked. Except for the whizz of the shell as they leave the rotary disc, the sounds produced need be no greater than those of an ordinary stationary engine. The enemy would, therefore, have no other intimation of the presence of this formidable weapon than the explosion of its shell against his defences.

The projectiles used for this gun do not materially differ from the common shell of ordinary artillery. Penetration is effected by means of a solid steel-head; and the charge of dynamite, or other high explosive, is detonated by a steel rod extending through the centre. Should the target be missed, and the shell fall into the sea, it would, nevertheless, be exploded by means of another simple arrangement, and its effect would by this means be not wholly thrown away.

Such are the outlines of this the most recent addition to the engines of destruction which the advance of science has placed at the command of modern armies.

Volunteer Notes.



THE past month has been a memorable one for Volunteers, chiefly, it will be admitted by careful students, on account of the representation of the Force at the great Review and Field Day on the 7th at Aldershot, before the German Emperor. At this function the writer had the satisfaction of being present, and of having exceptional opportunities of studying the proceedings. That his impressions were of the most favourable description will be gathered from the succeeding paragraphs. In the meantime, he would call attention to the completeness with which certain Volunteer critics, claiming to be thoroughly representative of the movement, have stultified themselves in their previous declaration that for Volunteers to be included in the Review was an entire mistake, and that a *fiasco* would be the most probable result. As regards the first contention, it is difficult to gather on what grounds so obvious a fallacy could have been based. One of the chief *raisons d'être* of the demonstration, such as it was, was to show the young Kaiser what our Volunteers were and what they could do. Even with them the actual spectacle was perhaps a not particularly impressive one to the head of a German Army, but without them it would have been a pure superfluity. As regards the expected *fiasco*, apprehensions of this kind were utterly dispelled by the result. Some ten thousand Volunteers contrived to be present in capital condition, and subsequently to acquit themselves to the general satisfaction, and even, if his utterances have not been grossly misreported, to the real surprise of one of the keenest military critics in the world. "They are equal to the best of our Landwehr," the Emperor said, alluding to the appearance and performances of the Volunteers whom he had witnessed, and in the mind of those who know these things this is praise indeed.

The various aspects of the Field Day and Review have been so fully dealt with in the daily and weekly newspapers that there is little need to discuss them fully, even as regards those for whom

these *Notes* are written, in a magazine. But a few remarks must of necessity be offered, if only to show our intention to discuss not only abstractions but events of current topical interest. Let us commence by saying the operations of the 7th August included some 25,000 of all arms, of whom some 10,000 were Volunteers, and that it consisted of manœuvres extending over three hours, and a march past in which, to suit train requirements, the Volunteers were permitted to take precedence of the Regular Infantry. The day was lovely, the arrangements excellent, and although Aldershot is not the most delightful of places in which to spend a happy field-day, we imagine that there are few of the Volunteers present who now regret having attended a function of perhaps something more than even national importance.

For the purposes of the manœuvres and march past the force of citizen soldiery was divided into three brigades, the first commanded by Brigadier-General Lord Wantage, V.C., K.C.B., the second by Colonel Trotter, late Grenadier Guards, and the third by Sir W. Humphery, C.B. The first and second were, during the manœuvres, attached to the southern or invading force, while the third, or Portsmouth brigade, threw in their lot with the defenders. The steadiness on all sides was remarkable, and if occasionally little *contretemps* occurred, such as the reception of friends as well as foes by a withering fire, the general result certainly surpassed the most sanguine expectations. In the march past the good effect was more than repeated, there being but a fraction of difference in accuracy of alignment between the Volunteers and the Line regiments. The first to go by in column of grand divisions was Lord Wantage's familiar Home Counties Brigade, comprising the 1st V.B. Royal Berks, 1st Bucks R.V., 1st V.B. Bedfordshire, 2nd V.B. Oxfordshire Light Infantry, 3rd V.B. Bedfordshire, and the Cadets of the public schools. In the remaining two brigades no less than eighteen southern and metropolitan corps were included, with not altogether satisfactory results; for to many it seemed as if the War Office would have done wisely to permit only those battalions to attend the Review who were able to send a really representative contingent. In the Home Counties Brigade this principle seems to have been recognized, Lord Wantage's own regiment, the 1st V.B. Royal Berkshire, which he has commanded since its formation, turning out with a strength of no less than 80 officers and 827 men. On the other hand, the 2nd London Rifles only sent 1 officer and 72 men, a somewhat puny contingent to furnish on such an occasion.

The cyclist section was in a sense interesting, but much too small, and greatly handicapped, moreover, by the nature of the ground over which the manœuvres extended. Those who are acquainted with the Fox Hills at Aldershot will fully appreciate the position of the little band of wheelmen as they laboured through the heather, not always unaccompanied by chaffing remarks from the crowd, to whom the spectacle seemed to afford much amusement. Altogether they might well have been spared, as not illustrating in this case even the special purposes for which it is claimed that military cyclists can be usefully employed, and as certainly somewhat superfluous in manœuvres in which nine crack regiments of cavalry were present in active operation.

The many friends of the Honourable Artillery Company were delighted at their appearance, and the manner in which they carried out the important special functions entrusted to them. All the branches of the Company were represented, the field artillery forming part of the divisional artillery of the Defending Force, while the cavalry formed a special escort of forty sabres in attendance on His Imperial Majesty, and the infantry were incorporated in the Second Aldershot Infantry Brigade under command of Major-General Mansfield Clarke. The infantry also formed the guard of honour at the saluting point, being by many mistaken for Guardsmen, a not unnatural conclusion considering the similarity of their equipment and the size and smartness of the men selected. Altogether the H. A. C. may well be congratulated on the manner in which they have recovered from their tribulations and asserted their position as a self-contained corps, capable of holding its own even before a German Emperor, and in company with the chosen troops of our own country.

But, putting display and numerical strength a little on one side, one of the most interesting features of the Volunteer representation at Aldershot was, to the student, the appearance of the Volunteer Medical Staff Corps, an institution on the importance of which the writer, although he sincerely hopes never to come into too intimate contact with it, would lay the greatest possible stress. In former times it used to be a military axiom that it was far better in action to wound a man than to kill him outright, as a dead man gave no trouble, while a wounded one required two other men to carry him off the field, thus putting three men *hors de combat*. Now-a-days, the increasing efficiency of the Medical Staff Corps has put an end to this pleasant doctrine, and the importance of a Volunteer development in this direction is, or ought to be, obvious. Indeed, it

may be noted that the Germans have here had their eyes opened to English progress, and even during the present month intimation has been received that they are taking up the idea with considerable vigour. It may safely be assumed that the report of the German staff officers present at the Aldershot Review will, if anything, give an impetus to the German Volunteer Medical Aid Corps, as it should to our own Staff Corps, which, at first by no means encouraged and compelled to work its way through many difficulties and at large expense, has at length attained a most prominent position fully acknowledged by the authorities, and daily more properly recognized by other branches of the Volunteer movement.

The actual strength of the Volunteer Medical Staff Corps at Aldershot was 21 officers and 368 men, and it comprised a Bearer Company with pack transport, all very smart and efficient and commendably enthusiastic. The contingent was composed of detachments from the various divisions, of which there are now seven in the principal towns of the kingdom, and as these detachments had only had the advantage of a few days' training with the Regulars, it was a decided compliment to them that they should be allowed to operate independently in attendance on the defenders of our hearths and homes. And the compliment was justified by the celerity with which the bearers were sent into the fighting line, and with which collecting and dressing stations—Captain Tomkins's new Tortoise Hospital Waggon being used as field hospitals—were formed.

We have, perhaps, dwelt at what some readers may consider unnecessary length upon the Aldershot Review, but in reality we may be well thanked for our forbearance. For this, indeed, was a case in which the Volunteers were distinctly on their trial, and if they had failed, it would have been, perhaps, as heavy a blow to the Volunteer movement as it could possibly have sustained; but they did *not* fail. And though the Volunteers have much to learn before they can approach that standard of efficiency which we think they ought to reach, and will reach, under proper organization and encouragement, there can be no sort of doubt but that here they scored what in the circumstances was a remarkable success. The German Emperor is no waster of fine words, and is one of the last men in Europe to say what he does not mean in a matter of military criticism. His admission that our Volunteers are equal to the best even of his Landwehr, is, we repeat, one of the truest and best compliments with which the English Volunteers have hitherto been honoured.

The Shoeburyness meeting of the National Artillery Association, following on the meeting of the National Rifle Association at Wimbledon, has been to many Volunteers the event of the month, and up to the date of writing the gathering has been a most successful one. A pleasant feature has been the special opportunity afforded to Volunteer officers of studying the Ordnance used by the regular, naval, and military forces, an opportunity of which visitors to the Shoeburyness camp seem to have freely availed themselves.

In the matter of Volunteer artillery it seems that the 40-pounder breech-loading Armstrong is daily growing in favour as a most accurate weapon, and one generally suited to Volunteer purposes. In several cases powerful position batteries have been formed in brigades, comprising four guns and three waggons per battery, and worked with very great smartness indeed. Perhaps we should not go very far wrong in saying with almost too much smartness, for there is, perhaps, if anything, a slight tendency on the part of Volunteer artillerymen to ape the manœuvres of a field battery in their manipulation of the 40-pounder, a siege and position gun *par excellence*. Far be it from us to deprecate any efforts to demonstrate the mobility of this fine weapon. On the contrary, we would urge every attention being paid to expedition in training and detraining, and to getting the guns into position with the utmost possible directness and absence of fuss. Our idea of Volunteer artillery is that, on the order to mobilize, it should be able to make its way to the coast with real despatch—guns, waggons, horses, and men—and when there should be able to occupy at once any position created or improved for it by the Engineers. But for 40-pounders to be rushed hither and thither as if they were the old Horse Artillery 6-pounders is not only a tactical error, but is apt to be hard on the splendid teams so generously lent by local owners for the special purposes of these batteries of position.

The Volunteer Engineers, proud in their new acquisition of the Royal title, have been undergoing a spell of instruction and camping combined by detachments at Chatham. It is noticeable that a movement is setting in for a more extended training of these corps in real engineering work, a movement the desirability of which is obvious. The Volunteer Engineer can never hope to approach our own regular sapper in all-round efficiency, for the latter is a very exceptional creation, equal, as a rule, in the private ranks, to the non-commissioned officer of other branches; but at any rate he should try to attain something like the continental standard. The

difficulty lies, of course, in the insufficiency of the capitation grant to secure special men. If the strength of the corps were half what it is at present, and the capitation grant double, something like a *modus vivendi* would be arrived at, and men having a trade useful for military purposes readily induced to join. At present, for the sake of the capitation grant, men quite unfitted for engineering work have to be accepted, the result being that Volunteer Engineers are perhaps more often than not simply infantrymen, with, as someone observes, "an annual pontoon thrown in."

During the month the Volunteers on the coast have naturally been somewhat exercised at the progress of the Naval Manœuvres, and have shown a disposition to associate themselves with the supposed defending force to an extent not attempted during the operations last year. This is as it should be, for no stronger argument could possibly be adduced of the utility of Volunteers, when emergency arises, than their capacity and willingness to resist to the utmost of their powers an invasion "in play." It is truly gratifying to learn how, on the appearance of this or that cruiser, the local Volunteer has arisen and girt himself and gone forth to make a demonstration, not very formidable may be, but still a demonstration, and a hearty one. In the matter of coast artillery, there are many lessons to be learnt in this direction by association with the Naval Manœuvres, although, to a certain extent, the real duty of defending guns, that of preventing an enemy's landing by pounding the invaders' boats, is but indifferently well indicated. The actual readiness to be up and doing on the slightest alarm is a great point gained, and if constant practice in this is provided by the operations of the hostile fleet, it may be taken for certain that the Volunteers will have learnt, in a short space, many useful lessons in the desirable art of keeping England, Scotland, and Wales an island still "compassed by the inviolate sea."

With September comes on a period of comparative repose for a large section of the Volunteer Force. Camps have been, for the most part, happily accomplished, and inspecting officers have come and gone, saying many kind things and some wise ones, and adjutants and sergeant-instructors are beginning to breathe a little more freely. Before long we shall begin to hear of autumn and winter "diversions," chief among which, in many minds, will rank those connected with the tactical societies of which there is now quite a network extending over the length and breadth of the country. In this connection may well be noted the admirable

movement in the direction of tactical instruction, to which practical interpretation was given during the last fortnight by the despatch of a large party of metropolitan Volunteers to Aldershot for instruction by Major Farrant, D.A.A.G. In the matter of tactical knowledge our non-commissioned officers, even of the Regular Forces, are not up to any very lofty standard, and though it is undesirable that this class should devote too much to a study in which truly a little knowledge is sometimes a dangerous thing, still it cannot but be admitted that the idea, as at present being executed, is full of advantages not only to the individuals concerned, but also to the corps to which the latter belong. Moreover, it is a refreshing evidence of a growing belief in the theory that association with and extended instruction from Regulars is one of the surest, safest, and yet quickest of royal roads to Volunteer efficiency.

Another point to which Volunteers are addressing themselves with vigour is signalling, both by "flag-wagging," the heliograph, and the flashing lamp. Here is a department, and a very essential department too, in which the Volunteers can soon hope to compete with the Regulars on their own ground, and the significance of this is rendered doubly great by the possibility that, in emergency, the Volunteers could here largely supplement our first line. This would, of course, preclude the withdrawal from the latter of highly trained fighting men of whom we may not, under certain circumstances, be able to spare any unless absolutely compelled to do so for this purpose. Even, however, putting this last consideration on one side, the increase of trained signallers in the ranks of the Volunteers is a distinct matter for congratulation, and additionally so when we have direct evidence of Volunteer enthusiasm in this direction. It should be mentioned, in support of this last remark, that the August bank holidays were utilised by two London corps, the Victoria Rifles and the London Scottish, in forming a chain of stations and keeping up communication by flags and the heliograph in the daytime, and by Steward's new lime-light signalling apparatus by night. Much useful work was done; considerable rapidity and, what is even more important, lucidity—in the ordinary, not the æsthetic sense of the word—attained.

On the Saturday following the Aldershot Review an important final meeting of the National Rifle Association was held at Brookwood, within about a mile of the site of the New Wimbledon, on Bisley Common. The object of the meeting was to finally pass

the plan of ranges before handing over the survey work to the Royal Engineers, a party of whom from Aldershot were already encamped upon the ground. The writer had the satisfaction of visiting the site at this juncture, and of being shown the plans which were duly approved by the meeting, and which embody some remarkable improvements upon the arrangements in force at Wimbledon. The main block of ranges, for instance, is arranged to include no less than ninety targets, a large increase being also made in the number of targets for the longer ranges, thus enabling great competitions such as the Queen's to be got through with a celerity absolutely impossible at Wimbledon. The buildings are arranged on the high ground adjacent to the ranges and in full view of the firing. It is claimed by the Superintendent of Works that the drainage of the ranges will be reduced to a minimum, and that the site generally will possess many advantages not perceptible at first sight. The writer himself, after visiting several of the other sites, and being strongly prepossessed in favour of Cannock Chase, cannot but admit that Bisley Common has many charms, and that its neighbourhood to Aldershot and the Pirbright Ranges is distinctly in its favour. The country is delightful, and the spot selected for the ranges as level as all but the most exacting of shots could possibly desire.

In connection with the Bisley Common site it is satisfactory to observe the action of the London and South-Western Railway Company, who are dealing with the question of fares and so forth in a spirit of generosity outside even the commercial aspects of the case. Although the distance is some thirty miles from London, they have promised to take Volunteers in uniform and others able to show evidence of their connection with the meeting there and back for "the ridiculous sum of eighteenpence." Added to this they propose greatly enlarging the station at Brookwood, and constructing a steam tramway thence into the heart of the camp. This last will make the New Wimbledon almost as accessible as the old; indeed, in some respects, even for metropolitan Volunteers, it will be actually more convenient.

The distant pop—pop—pop of the Volunteer machine guns at Aldershot made one reflect a little as to the future of these delectable weapons in connection with the Volunteering movement. Volunteer commandants may well ask themselves how long it will be before they are supplied with the new rifle, and if the date is to be near is it worth their while to incur the expense of machine guns carrying a different cartridge? In all probability

the Martini-Henry will remain the Volunteer arm for several years to come, but in any case a few plain words in answer to a civil question put in Parliament to the Secretary of State for War would set the matter at rest, and either allow Volunteers to spend their money freely and cheerfully in Maxims and other patterns, or to wait for a more favourable opportunity to secure a still newer pattern adapted to the new elongated and small-bore cartridge.

Many thousands of Volunteers, especially those in the north of England, will have mourned the sad and sudden death during the past month of Lieut.-General C. F. T. Daniell, late commanding the Northern District. Probably no General ever took a closer and warmer interest in Volunteers than did the deceased officer, and certainly his experience of them, extending as it did over an area of some four-and-twenty counties in which the Volunteers number some eighty thousand, was exceptional. His popularity with them was no doubt in great measure due to his extreme kindness and that "utter courtesy" with which he treated everyone who came into contact with him; but he was still by no means slow to point out faults and suggest lines of progress. With him Strensall, as a great Northern camp in which Militia and Volunteers should enjoy full association with Regulars, was an especial hobby, and possibly if he had not been compelled in the ordinary course of things to give up his command on the 1st of May, and his useful and honourable life had been prolonged for another decade, his dream might have been realised. As it is, it is to be feared that Strensall, having gone up like a rocket, has also come down like the stick. This year its season for Regulars and Militia, though brilliant, was very much curtailed, while the Volunteers have ignored it altogether.

A certain *fiasco* in connection with a public function in the metropolis a month or two since has led to an important order by the Commander-in-Chief as to the employment of Volunteers for the purpose of keeping the ground on similar occasions. This practice, says His Royal Highness, is to be discouraged and sanction only to be given in exceptional cases where the employment of Volunteers seems advisable and necessary. A very sensible order this, and one which was almost a foregone conclusion after the name of an illustrious personage had been dragged into the police courts through the natural inability of the Volunteer to assume the authority of the civil guardian of the public peace or the physical aspect of the lancer or dragoon.

The Lord Mayor's Patriotic Volunteer Fund has reached the very handsome amount of £40,000, and has apparently stopped at that point. In the opinion of many, a sufficient sum has been realized to place the metropolitan Volunteers, at any rate, on a footing which will enable them to feel no serious alarm on the score of the letter respecting equipment to which, in conjunction with the Lord Mayor's action in the matter, a large portion of the agitation on the subject is due. One of the latest contributions to the fund, by the way, has been that of H.R.H. the Duke of Connaught, whose exclusive patronage of the metropolitan corps is not relished by Volunteers in the provinces, who are still a little sore at the way in which the Lord Mayor has monopolized subscriptions which they naturally consider should have been made for national purposes. It was thought that by this time those in authority had recognized the fact that the Lord Mayor's action, if well-meant, was somewhat hasty, and hardly fair to many corps who, if an invasion were to take place to-morrow, would have quite as much to do in repelling it as would the Volunteers in the metropolis. In the meantime, thrown on their own resources, the Volunteers in the provinces are doing their best, and foremost among the active promoters of the subscription is the Marquis of Ripon, in his capacity of Lord Lieutenant. His action will no doubt be vigorously followed up, and when the result is attained let us earnestly hope it will be attained once for all. Sending round the hat is an operation which, however distasteful, is inseparable from our Volunteer system. At the same time it should occur as infrequently as possible, lest peradventure the public come to regard Volunteer appeals as a form of tax, and when once it comes to this, the popularity and *pari passu* the efficiency of the Volunteer Force may safely be said to be at an end.



The New Additions to the U.S. Navy.

(From the *Scientific American*.)



THE 2,000 ton steel cruisers, now known as cruisers Nos. 9, 10, and 11, were authorized by an Act of Congress approved September 7, 1888, the limit of cost being 700,000 dols. each.

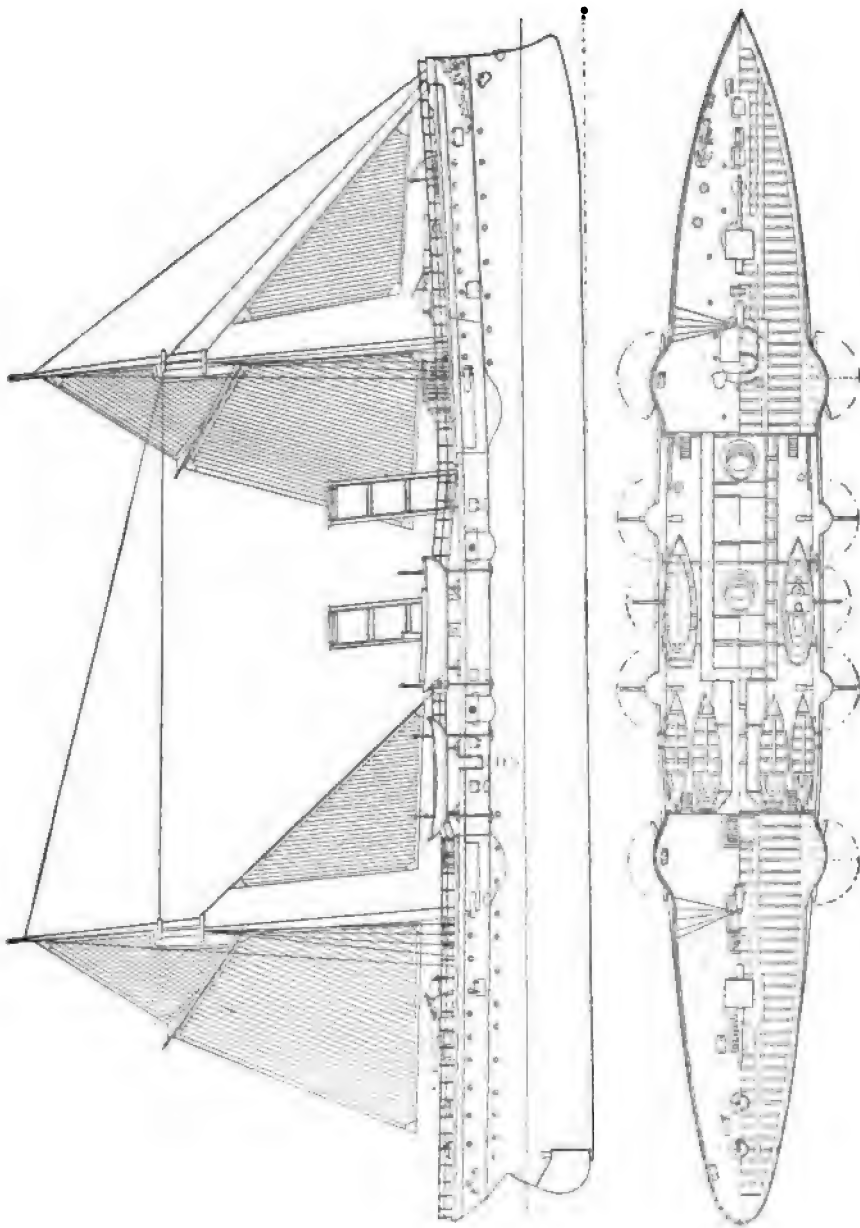
The principal dimensions are as follows:—
Length on load water line 257 feet, extreme breadth 37 feet, depth of hold to under side of spar deck plank amidship 19 feet 6 inches, draught of water mean normal 14 feet 6 inches, displacement in tons to load water line 2,000, tons per inch at load water line $15\frac{1}{4}$, area of immersed midship section 665 square feet, transverse metacentre above centre of gravity 7 feet, moment to alter trim 1 inch 200 foot tons, indicated horsepower (forced draught) 5,400.

Maximum speed per hour, 18 knots in smooth water. Complement, officers and crew, 185.

They are twin-screw protected cruisers, with poop and forecastle decks, with open gun deck between, fitted with a water-tight deck of $17\frac{1}{2}$ lb. plating at side, reduced to 12 lb. in centre, extending the entire length of the vessel, this deck being below the load water line at the side 36 inches. Below this deck is placed the machinery, magazines, and steering arrangements.

Among the improvements in these vessels is an increase of speed, rearrangement of battery, which is to be composed entirely of rapid fire guns, a cofferdam protection extending throughout the entire machinery space.

The berthing accommodation and officers' quarters have been greatly improved. Quite an innovation on previous arrangements has been made in the location of steerage, which is aft of the ward-room, giving the senior officers quarters nearer amidships, which is freer from the jar of machinery and motion of the ship; the entrance to the steerage is effected through the after 6-inch gun



A 2,000-TON STEEL CRUISER.

supports, which leave an exclusive entrance to the wardroom for the officers quartered there, and at the same time giving spacious and more retired accommodation to the steerage.

The main battery is composed of two 6-inch rapid fire B.L.R. and eight 4-inch rapid fire B.L.R. The secondary battery consists of two 6-pounder, two 3-pounder, two revolving cannons, and one Gatling gun.

The torpedo outfit of these vessels will be six torpedo guns or launching torpedoes, fixed one in the stem and stern, and training tubes on the sides.

Automobile torpedoes will be fired from these tubes, and there will be a complete outfit of boat spar torpedo gear and charges. A conning tower, oval in shape, is located on the forecastle deck, being $7\frac{1}{2}$ feet athwartships by 4 feet fore and aft, and 5 feet $4\frac{1}{2}$ inches above the deck.

The tower is fitted complete with steam steering wheel, engine-room telegraphs and speaking tubes. A wood pilot or chart house is fitted forward of the conning tower having plate glass windows, steam steering wheel, engine-room telegraphs, tell-tale for rudder, chart table, &c.

The rig is that of a two-masted schooner having a small spread of canvas.

Coal Endurance.—The normal coal supply is 200 tons, but the bunker capacity is 435 tons. This coal is disposed in wake of the machinery and boilers, so as to give the greatest protection.

Lighting, Ventilating, and Drainage.—There will be an installation of electric light on board. Means are provided for securing natural and artificial ventilation in the living and storage spaces, utilizing frame spaces, together with louvres and cowls fitted along the top, sides, and such ducts as are necessary to effect communication with the spaces below. Automatic valves are fitted in ventilating pipes where they pass through water-tight bulk-heads to prevent the flow of water from one compartment to another. Escape for the explosive gases generated in the bunkers is provided for by means of inlet and outlet pipes, and trunks leading to the funnel casings.

There is a complete steam pumping arrangement fitted, to be used for bilge drainage or fire purposes; also $7\frac{1}{2}$ and $5\frac{1}{2}$ inch hand pumps for draining the water-tight compartments, engine and shaft bearers, platforms, &c., delivering overboard or into the fire main.

The fire main is worked nearly the whole length of the ship, and

can be charged with water at a high pressure from the steam pumps, being also connected with hand pumps, and fitted with the necessary nozzles and hose.

The motive power for the twin screws is furnished by two triple expansion engines of 5,400 horse-power, with cylinders of $26\frac{1}{2}$, 39, and 68 inches diameter, and a stroke of 33 inches.

The engines and boilers are placed in separate water-tight compartments.

There will be independent air and circulating pumps, and auxiliary condensers and pumps for auxiliary machinery.

The crank shafts are made interchangeable. All framing, bed plates, pistons, &c., are of cast steel, with working parts of best forged steel.

The boilers are of steel, designed for a working pressure of 160 pounds, and are five in number, of the return fire tubular type. Three of them are double-ended and two single-ended. The latter are to be used as auxiliaries, but when steaming full power can be connected with the main engines.



A List of Military Inventions

PATENTED DURING THE FOREGOING MONTH.

[This List is specially compiled for the ILLUSTRATED NAVAL AND MILITARY MAGAZINE by Messrs. Rayner and Cassell, patent agents, 37, Chancery Lane, London, W.C., from whom all information relating to patents may be had gratuitously.]

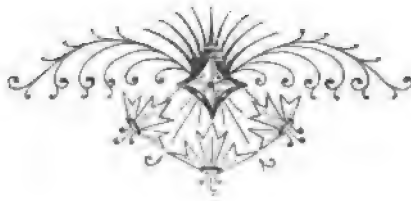
- 11,520. Naval or territorial attack or defence constituting percussive breech-loader cannon, percussive cartridge, and percussive dart and lance-armed projectile. JAMES H. PERRY, 28, Tolmers Square, Hampstead Road, London. July 18.
- 11,552. Improved combination military weapon. THOMAS LUKE, 6, Stamford Grove East, Upper Clapton, and 37, Chancery Lane. July 19.
- 11,667. Process and apparatus for the manufacture of explosives in the form of wires or rods, and performing the same for cartridges. Sir FREDERICK AUGUSTUS ABEL, JAMES DEWAR, and WILLIAM ANDERSON, 28, Southampton Buildings, London. July 22.
- 11,694. Improvements in military and other signals. GEORGE WASHINGTON MOON, 16, New Burlington Street, Westminster. July 23.
- 11,751. Improvements in projectiles. EDWARD JAMES BOWLES, 18, Fulham Place, Paddington. July 24.
- 11,188. Improvements in or relating to the manufacture or treatment of material for the construction of guns and other purposes. JOSEPH POTTS, 2, St. Nicholas Buildings, Newcastle-on-Tyne. July 26.
- 11,995. A revolving limber-box for ammunition. LOTHIAN KERR SCOTT, Forest Lodge, Farnborough, Hampshire. July 29.
- 11,089. Improvements in mining or blasting cartridges, and in shells or exploding projectiles. PAUL GIFFARD, 55 and 56, Chancery Lane, London, W.C. July 30.

- 12,164. Improvements in or applicable to the manufacture of shells, shots, and other missiles. WILLIAM AMBLER, 321, High Holborn. July 31.
- 12,537. Improvements in cartridges. M. TWEEDY and F. L. MUIRHEAD, 3, Elm Court, Temple. August 8.
- 12,618. Improvements in sighting apparatus for guns. JOHN EDWARD COMPTON-BRACEBRIDGE, 24, Southampton Buildings, London. August 9.

SPECIFICATIONS PUBLISHED.

- 9,455. ACCLES. Machine-guns. 1888. 11d.
- 9,926. BASSNETT. Ships' compasses. 1888. 6d.
- 3,301. LAWRENCE. Quick-firing guns, &c. 1889. 11d.
- 9,976. RAFFERTY. Coast, &c. defences. 1889. 8d.
- 8,594. WALL. Marine signalling, &c. 1889. 8d.
- 8,879. AMMEN. Life-boat. 1889. 6d.

The above specifications published may be had of Messrs. Rayner and Cassell, 37, Chancery Lane, at the prices quoted.



Reviews.

Military Administration for Volunteer Officers. By Captain H. WALKER, Adjutant 2nd Volunteer Battalion West Yorks Regiment. (Chatham: Gale & Polden, 1889.)

This manual should be of extensive practical utility to Volunteer Officers who are desirous of acquiring a knowledge of the interior economy of a battalion; in other words, an insight into the domestic life of soldiers. Now that the mobile volunteer brigades have been organized, our citizen army has become an integral portion of the national defences, and will, in the case of invasion, be called on to fight shoulder to shoulder in the field with their comrades of the Line and Militia. Volunteer Officers, however, will not be in a position to look after their men in the field unless acquainted with the routine of camp life. This little volume will supplement their inexperience to a certain extent by indicating how the men's rations are to be drawn, their clothing provided, pay issued, while each form appropriate to the occasion will be found in the appendix. A few useful notes relative to court-martial practice and military law have been added to this text-book, which also contains an interesting account of Colonel Burnett's cooking reforms in the army.

Particulars of the War Ships of the World. 7th Revised Issue. (Lloyd's Register of British and Foreign Shipping, 1889.)

This invaluable book of reference has appeared in its revised form, most appropriately, when the eyes of Europe and America are fixed on the naval manœuvres which are in progress. Among the new battle-ships noted down as in course of construction we observe the *Hood*, a steel turret ship of 14,600 tons and 14,000 h.p.; and three barbette ships, the *Renown*, *Repulse* and *Royal Sovereign*, each of 14,150 tons and 13,000 h.p. The *Centurion*, a second class battle-ship of 9,000 tons is likewise inscribed in the roll, though details appear to be wanting. The *Sultan* has disappeared (to re-appear, we hope), and the *Impérieuse* and *Warspite* have been rated as armed cruisers instead of second class battle-ships. With regard to the French navy, there is no great augmentation of strength indicated, though several battle-ships, such

as the *Amiral Baudin* and the *Formidable*, count with better reason than was the case last year on the muster-rolls of the fleet.

Life in the Army. By R. SIMKIN. (London: Chapman & Hall, 1889.)

Mr. R. Simkin has created for himself a position quite unique in the artistic world for correctness of detail in illustrating military subjects. The present series of coloured plates, illustrative of life in the Army, will certainly not detract from the reputation he has won, for they supply a panorama of military life which is tolerably exhaustive in every respect. Boys of a martial turn will rejoice in this book as a veritable treasure-trove, and it will not be found out of place on the drawing-room table. We see evidence that Mr. Simkin has not remained unaffected by the realistic spirit of the age, in the braces visible under the stout major's mess-jacket as he rises to propose the health of Her Majesty.

Company Drill (Illustrated). By A. BAIN, D.I. Royal Irish Constabulary. (London: The Services Printing and Publishing Corporation, 1889.)

This little volume comprises in a portable shape information, extracted from the new drill-book, which is required by soldiers whose duties do not extend beyond the movements of a company. These are elucidated by useful diagrams.



At the Play.

THE chief novelty for play-goers, since our last issue appeared, has been the brief season of English opera at the PRINCESS'S, where Mr. J. W. Turner's company gave twelve performances, which included mild operas like "Maritana," "The Bohemian Girl," "The Lily of Killarney," &c., &c., with the occasional interlude of a standard work such as "Fra Diavolo." However, in spite of the poorness of the bill of fare from a modern point of view, the musical presentation thereof was of an even and high standard of excellence, showing that Mr. Turner has only to enlarge and improve his *répertoire* in order to command the patronage of Londoners. The pieces which we had the opportunity of witnessing were "Maritana" and the "Lily of Killarney." The former work, a collection of pretty drawing-room airs linked together by nonsensical dialogue, with a plot which oscillates between farce and tragedy, leaves a corresponding impression on the mind. The vocalization of Mr. Walter Gray, as Don Cæsar de Bazan, was everything that could be desired in *cantilena*, though he scarcely possesses enough power to succeed in declamatory phrases such as "Yes, let me like a soldier fall," which is really worthy of the attention of Signor Tamagno. Mr. Allen Morris as Don José de Santarem, and again as Danny Mann in "The Lily of Killarney," proved the excellent quality of his baritone voice, and that he possesses histrionic powers of a high order; while Miss Jeanie Rosse, as the boy Lazarillo, won unstinted applause by her graceful rendering of "Alas! those chimes so sweetly pealing," which, notwithstanding the absurdity of its sentiment, is the gem of the opera. In "The Lily of Killarney" Mr. Turner in person scored a great success as Myles na Coppaleen, and it must be admitted that the Italian stage often produces tenors of far inferior calibre. Miss Constance Bellamy, as Eily, sung her part well, and looked a pretty and most realistic ideal of the "White Girl." Mr. Burnand's play "Proof" was revived at the same theatre on the 12th August.

At the VAUDEVILLE THEATRE, on the 29th July, was produced "In Danger," a really striking drama, by Messrs. Lestocq and Henry Cresswell. The interest is well sustained throughout, though the plot is so intricate as to be at times difficult to follow,

and one feels that such incidents could hardly occur in real life. The parts of the heroines, who are certainly "in danger" with a vengeance, are well represented: Kate Doran by Miss Florence West, and Lily Doran by Miss Agnes Miller. The latter displays such lamb-like simplicity, not to say silliness, that she is most aggravating in her loveliness; but this, of course, but shows how cleverly she acts her part. We fail to see why Colonel Owen, who appears to be meant for a respectable member of society, should have taken so persistent and objectionable an interest in his defunct brother's fate; he knew him to be a thorough-paced scoundrel, and should therefore have let the sisters alone like a gentleman. There certainly does not seem to exist a sufficient motive for his malicious behaviour, on which the whole plot rests.

Mr. Burnand's new comedy, "The Headless Man," was produced on the 27th July at the CRITERION THEATRE. It evidently commanded the admiration and audibly the laughter of a crowded audience, who, we think, must have been fully aware that the author is editor of *Punch*.

Pieces already noticed and still running.

ADELPHI.—"The Shaughraun," with Messrs. Terriss, Shine, &c., and Mesdames Millward, Beardon, Carter, Esmond.

COURT.—"Aunt Jack," and "His Toast."

LYRIC.—"Doris," comic opera, Mr. Ben Davies, Mr. Hayden Coffin, Mr. Furneaux Cook, Miss A. Alba, Miss Augarde.

PRINCE OF WALES'S.—"Paul Jones," comic opera.

SAVOY.—"The Yeomen of the Guard," comic opera, Mr. G. Grossmith, Mr. R. Temple, Miss G. Umar, Miss J. Bond, Miss R. Brandram.

TERRY'S.—"Sweet Lavender," comedy, Mr. E. Terry, Mr. A. Bishop, Mr. Brandon Thomas, Mr. H. Dana, Miss Victor, Miss C. Addison, Miss Maude Millett, &c.



Foreign Service Magazines.

SUMMARY OF ARTICLES.

REVUE DU CERCLE MILITAIRE—ARMÉES DE TERRE ET DE MER.
(Paris: 97, Rue Bellechasse.) 20th July and 20th August 1889.

The New Law on Recruiting—The Army and the Exhibition (*continued*)—Night Marches and Night Attacks—Mountain Warfare and the Defence of the Vosges—Shelter Trenches.

REVUE GÉNÉRALE ET DE L'ÉTAT-MAJOR. REVUE MILITAIRE DES DEUX-MONDES. (Paris: Berger, Levrault et Cie., 5, Rue des Beaux Arts.) July 1889.

General Staffs—Staff Questions—The Defensive Organization of Foreign Powers: Germany (*concluded*)—A Journal of the Siege of Grave (*continued*)—The Army and the Exhibition.

REVUE D'INFANTERIE. (Paris: 11, Place Saint André-des-Arts.) July 1889.

Territorial and National Recruiting—Individual Field Training—Algeria.

LE SPECTATEUR MILITAIRE. (Paris: 15, Rue Saint-Benoit.) 15th July and 1st August 1889.

Letters on Cavalry—A Bird's-eye View of Spain (*continued*)—Sketch of a Regulation for Infantry Manœuvres (*continued*)—The Mexican Campaign (*continued*)—French Military Schools, Past and Present (*continued*)—Aéronautics at the Exhibition.

REVUE MILITAIRE DE L'ÉTRANGER. (Paris: L. Baudoin et Cie., 30, Rue et Passage Dauphine.) 15th and 30th July 1889.

German Possessions in Africa—The New Regulations for German Artillery Manœuvres (*continued*)—The Increase in the English Fleet (*concluded*)—The Austro-Hungarian Military Estimates for 1889-90—The Spanish Reserves—The New Austro-Hungarian Recruiting Laws—New Regulations for the Manœuvres of the German Artillery (*concluded*)—Changes in the Belgian Army.

REVUE DE CAVALERIE. (Paris: Librairie Militaire, Berger, Levrault et Cie., 5, Rue des Beaux Arts.) July 1889.

Some Observations on the Manœuvres of Cavalry with other

Arms—German Cavalry (*continued*)—Reconnaissances by Cavalry (From the Russian) (*concluded*)—Historical and Tactical Studies on the German Cavalry in 1870–71—Saumur.

JOURNAL DES SCIENCES MILITAIRES. (Paris: L. Baudoin et Cie., 80, Rue et Passage Dauphine.) July 1889.

Commissariat Tactics (*continued*)—The General Staff and Army Staffs—Fortress Engineers—The Internal Economy of Cavalry Regiments—Permanent Fortification at the Present Day (*continued*)—The Cavalry in the Manœuvres at Châlons in 1888 (*concluded*)—Recollections of the Campaign in Tonquin (*continued*).

LE PROGRÈS MILITAIRE. (Paris: 12, Rue du Mont Thabor.) 12th July to 14th August 1889.

The New Law on Recruiting—The Increase in the Artillery—Recent Military Legislation—The Army and the Exhibition—Non-commissioned Officers—Haras and Remounts.

JOURNAL DE LA MARINE. LE YACHT. (Paris: 50, Rue Saint Lazare.) 20th and 27th July, and 3rd and 10th August 1889.

The Manœuvres of the French Squadrons—The Navy and the Exhibition—Sea-sickness—Night Firing on Board the *Tonnant*—The Review at Spithead.

DEUTSCHE HEERES-ZEITUNG. (Berlin: 41, Königgrätzerstrasse.) Nos. 55 to 64, 1889.

Artillery Trials at Krupp's Works (No. 55)—The Increase in the French Field Artillery (No. 55)—The Training of Garrison Artillery (*concluded*) (No. 56)—The Study of Military History (No. 57)—Changes in Military Legal Procedure (No. 59)—Lances and Lancers (No. 62)—A Comparison Between Recent French and German Military Legislation (No. 63)—Bronze and Steel in the Construction of Ordnance (No. 64).

ARCHIV FÜR DIE ARTILLERIE UND INGENIEUR—OFFICIERE DES DEUTSCHEN REICHS-HEERES. (Berlin: Ernst Siegfried Mittler und Sohn, 68–70, Kochstrasse.) July and August 1889.

Firing Regulations for the Russian Field Artillery—Fire Tactics for a Group of Field Batteries—The Artillery Horse—Vauban.

INTERNATIONALE REVUE ÜBER DIE GESAMMTEN ARMEEN UND FLOTEN. (Rathenau: Verlag von Max Babenzien.) August 1889.

Frederick the Great's Manœuvres at Magdeburg in 1767—The Substitution of Field Batteries by Improved Maxim Machine-Guns—The Austrian Army and People—Is Russia Arming?—The Strategical and Political Significance of the Trans-Siberian Railway—The English Infantry—The Bulgarian Army (*concluded*).

MITTHEILUNGEN AUS DEM GEBIETE DES SEEWESSENS. (Pola : Druck und Commissionsverlag von Carl Gerold's Sohn in Wien.) No. 7, 1889.

The Russian Siege-Train—Trials with Pneumatic Dynamite Guns in North America—The Decauville Narrow-gauge Railway at the Paris Exhibition.

RIVISTA MARITTIMA. (Roma : Tipografia del Senato.) July and August 1889.

The Conquest and Loss of Cyprus—The Port of Barcelona—Coast Defence—Krupp Experiments on the Perforation of Armour-Plates—Photo Topography in Italy—Speed Trials of the Armour-clad *Lepanto*—Modern Explosives.

RIVISTA MILITARE ITALIANA. (Roma : Voghera Carlo.) July 1889.

How Future Victories will be Won—Regulations for the Manœuvres of the French Infantry—Soldiers of Our Time: Skobelev (*continued*).

THE PUBLIC SERVICE REVIEW. (New Jersey : The American News Co., Barnegat Park.) July 1889.

The Transportation of the Disabled, with Special Reference to Conveyance by Human Bearers—Roaring in Horses—Scientific Warfare—Ordnance Notes.

THE UNITED SERVICE. (Philadelphia : Hamersly & Co.) August 1889.

Strategy and Grand Tactics—Fire-ships, Powder Vessels, and Obstructions during the Civil War—The Capture and Trial of Major André—The French Army and the Revolution of 1789.

JOURNAL OF THE U.S. CAVALRY ASSOCIATION. (Kansas : The U.S. Cavalry Association, Fort Leavenworth.)

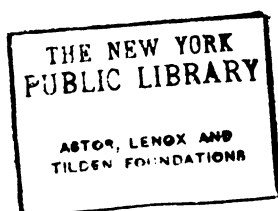
Cavalry War Lessons—The Pistol *versus* the Sabre for Light Artillery—Identification of Deserters—Letters on Cavalry by Prince Kraft zu Hohenlohe-Ingelfingen—Marching and Camping Cavalry and Caring for Horses in the Field—Drill Regulations for Cavalry, United States Army.

JOURNAL OF THE MILITARY SERVICE INSTITUTION. (Governor's Island, U.S.A.) July 1889.

An American War College—Mobilization—More about Cavalry Gaits—The Infantry in the Field—French Field Artillery.

THE MILITARY MAGAZINE. (Voyenni Sbornik.) (St. Petersburg.) August 1889.

The Passage of the Balkans by Skobelev, II., by General Kropotkin—Garrison Life on the Caspian at Krasnovodsk—A Short Military and Statistical Sketch of the Japanese Empire, V., by Baron Tisenhausen—The Cossacks of the Ural, and their Economic Condition, by N. Krasnoff (*concluded*).





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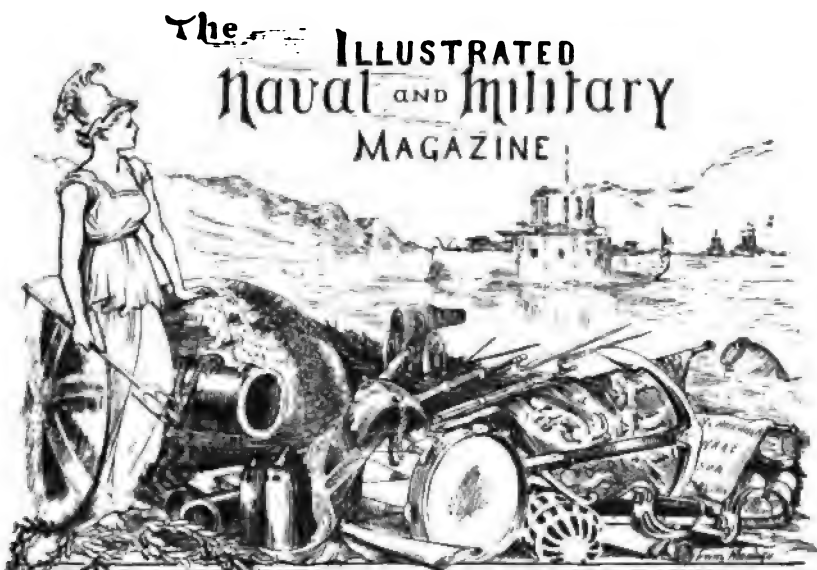
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No. 10.

OCTOBER 1st, 1889.

Vol. III.

Brigadier-General A. C. Hamilton,

COMMANDING SURREY BRIGADE OF VOLUNTEER
INFANTRY.



BRIGADIER-GENERAL ALEXANDER CHARLES HAMILTON entered the Royal Engineers as lieutenant in 1857. In 1875 he passed the final examination of the Staff College. He commanded the Telegraph Troop of the Royal Engineers from 1877 to 1882, and took part in the Zulu war in 1879, when he held the appointment of Director of Military Telegraphs and Signalling. From 1884 to 1888 he commanded the Royal Engineers in the Home District, and was in the latter year appointed to the command of the Surrey Brigade of Volunteer Infantry, which is composed of the following battalions:—

1st Volunteer Battalion Royal West Surrey Regiment.

2nd	„	„	„	„	„
3rd	„	„	„	„	„
4th	„	„	„	„	„

1st Surrey Rifle Volunteer Corps.

2nd Volunteer Battalion East Surrey Regiment.

3rd " " " "

4th " " " "

This brigade, which almost assumes the proportions of a division, has its head-quarters at 71, New Street, Kennington Park, S.E., and the place of assembly is Caterham. The Brigade-Major is Captain Hart-Davis, of the Reserve of Officers, and Major Barrett, of the Royal West Surrey Regiment, is Aide-de-camp to the Brigadier-General commanding.

The following portraits of Brigadier-Generals of Volunteer Infantry Brigades have already appeared in this magazine:—

1. Lieut.-General Lord Abinger, C.B., commanding West London Brigade, in April.

2. Brigadier-General Right Hon. J. H. A. Macdonald, C.B., commanding Forth Brigade, in May.

3. Brigadier-General Right Hon. Lord Wantage, V.C., K.C.B., commanding Home Counties Brigade, in June.

4. Brigadier-General the Earl of Sandwich, commanding the South Midlands Brigade of Volunteer Infantry, in July.

5. Brigadier-General Sir William H. Humphery, Bart., C.B., commanding Portsmouth Brigade of Volunteer Infantry, in August.

6. Brigadier-General Sir Henry Wilmot, Bart., V.C., C.B., commanding North Midlands Brigade of Volunteer Infantry, in September.

Naval Warfare:

ITS PRINCIPLES AND PRACTICE HISTORICALLY TREATED.

By REAR-ADMIRAL P. H. COLOMB.

CHAPTER IV.

THE STRUGGLE FOR THE COMMAND OF THE SEA—(*continued*).

Experience has taught that a superior commerce cannot be protected by only an equal fleet; and the Dutch, in the third war, still abandon commerce till greater strength is gained.—The direct struggle for the command of the sea is resumed at Sole Bay.—It is useless to prepare for making descents on the enemy's coast unless his fleet is first disposed of.—The embarkation of troops by the Allies is of no service.—The great powers of naval forces on distant expeditions if not met by like forces.



THE Dutch, throughout the whole of their second war with England, had carried it out on the principle of a simple and direct struggle for the command of the sea. They had nerved themselves for it by the abandonment of their commerce for the time, in order that neither their attention nor their forces should be diverted for a moment from the attainment of the main object in view. The result was that the protection of commerce dropped out of the regular programme, and great battles no longer hinged on the necessity of protecting convoy.

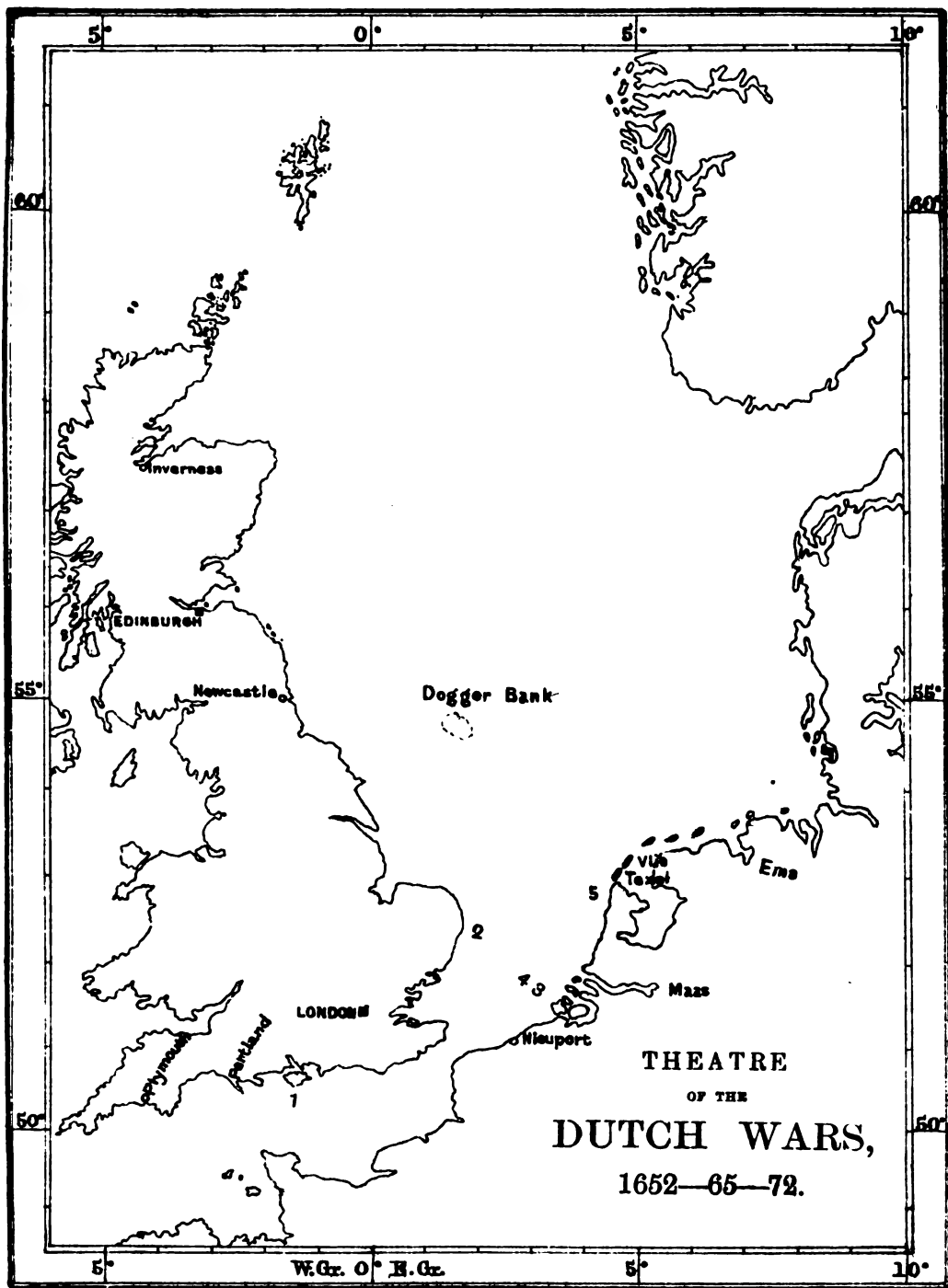
The completeness of the change of system between the first and second Dutch wars is easily lost sight of from the confused, undramatic, and pointless way in which the stories have generally been told. But we note it when we observe that out of the seven battles which marked the progress of the first Dutch war, four arose directly out of the necessity of protecting commerce, and that three times, if not four, it was chance which prevented the occurrence of battles under similar circumstances; and in the second

war, though there were captures of merchant ships on both sides, no battle came about in consequence of an endeavour to protect them. Thus, in the first war, we see it begin in July 1652 with an attack on the large squadron protecting the Dutch herring busses. Immediately afterwards, the accident of a gale of wind prevents Tromp from bringing Blake to action near the Shetland Islands, as a means of securing the return of the homeward-bound West India ships. In August, De Ruiter fights Ayscue off Plymouth, in defence of his convoy of 60 ships. In November, Tromp attacks Blake near the Straits of Dover, in order to leave the Channel free for the passage of 800 outward-bound Dutch ships. In February 1653, Blake in the Channel endeavours to intercept Tromp's convoy of 250 homeward-bound ships. In May, Dean and Monk all but bring Tromp to action off the Dutch coast, in order to make themselves masters of the 200 ships he was convoying outward; and in June, Evertz was only prevented by the accident of wind from attacking Bodley in the Downs, when he was in charge of eight merchant-ships.

In the second war, all this had passed away. Not a single battle arose out of commerce protection, and no outward-bound convoy left the ports of Holland. There were attacks, and very heavy ones, upon merchant shipping, but the heaviest were made upon ships at anchor in port; as at Bergen, and in the Vlie, on the English side, and as at Glückstadt, and the attempt on the ships in the Lower Hope on the Dutch side. It was more by chance than of set purpose that the Dutch captured nine English merchant ships on their way to fight the battle of Sole Bay; and that the English possessed themselves at sea of some of the scattered merchant ships, which they had failed to master at Bergen.

On both sides, again, we may observe a tendency to push the advantages even of a temporary command of the sea. This is shown principally in the successful and unsuccessful attacks on shipping in harbour; but more strongly in the descents upon the land, as at the islands of Vlie and Schelling, where the English appeared to land with their ordinary crews only; and at Sheerness and Harwich, where the Dutch employed regular troops. Still we have to note that these descents, as they were called, were only made when temporary command of the sea had been gained, and then only by detachments, the main body of the fleet being in all cases, as it were, securing the rear of the attacking parties.

Naval war had, in fact, found its limits and settled down into its bearings. The things which could and the things which could



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not be done with reasonable hopes of success were making themselves manifest, and it was being seen in what direction the ultimate appeal to naval force lay.

In both wars the English had had, on the whole, the best of it, and the Dutch, on the whole, the worst of it; and things at the end of the second war remained so much as they had been at the beginning of it—the raid on the Medway and Thames being quite understood on both sides to have been deliberately courted by the English—that the third Dutch war was laid out on the same principles as the second.

There were the usual reprisals before war was declared, and England, taking advantage of her position as lying across the stream of Dutch commerce, fell upon it in March 1672 at the back of the Isle of Wight (No. 1 on the chart), and the small force that could be got together under Sir Robert Holms was sufficient to levy a heavy contribution upon the unfortunate and unprepared Dutchmen.

France, which had failed to make herself of any use to Holland as an ally in the second war, was very much of the same mind towards England in the third war. But not quite; for she now brought a contingent of 36 men-of-war and 22 fire-ships under Count D'Estreés, and formed a junction with the Duke of York at the back of the Isle of Wight on the 14th of May, the united fleets sailing immediately to the favourite open anchorage of Southwold, or Sole Bay, on the coast of Sussex. But it may be usefully pointed out that the French alliance was employed, not to produce an overwhelming force at sea, but merely to relieve England from some part of the expense of the war. The Dutch generally sent to sea a fleet as large as that of the Allies.

On the outbreak of the war, the Hollanders prohibited sea-borne commerce in much the same terms as in 1665 and 1666. They were eager to contest directly the great point at issue, and during the hours of darkness before day broke on May 28th, the cannon of the look-out ships announced to the allied fleet then at anchor, the approach of the enemy (No. 2 on the chart).

The Allies were 65 sail of English and 36 sail of French, with 22 fire-ships, besides small vessels. The Duke of York commanded in chief, under the red flag; the white squadron was wholly French, under D'Estrées; and the blue was commanded by the Earl of Sandwich. The Dutch were 91 sail of men-of-war, and 44 fire-ships, besides 23 yachts and small vessels. Their fleet was also in three squadrons, De Ruiter commanding in chief with

the red flag ; Admiral Bankert commanding the white squadron ; and Admiral De Gent the blue.

The Allies were practically surprised. Many ships had to cut their cables to get into action, and the battle began between 7 and 8 A.M. De Ruiter said of it that he had never been in so continuous and obstinate a fight. The whole French squadron held back, and took as little part as they possibly could in the action. They retired out of the way to the southward, but were followed up to some extent, and lost two of their ships. Sandwich in the *Royal James* was determinedly attacked by fire-ships. The ship was fired and burnt, and Sandwich was drowned in attempting to escape from her. But notwithstanding this loss, and notwithstanding the defection of the French squadron, the Dutch were worsted, and fell back towards their own coasts, followed up by the English and by the French, who rejoined next day. The Dutch claimed to have burnt the *Royal James*, to have sunk two first-rates, and to have destroyed two other ships. They admitted that one of their ships was taken and another sunk.

The Allies now appeared off the Dutch coast with some intention of making a descent somewhere in Zealand, but in the near presence of the Dutch fleet found it would not be feasible. They then made some preparation for a descent on the island of Texel, but circumstances of tide caused the abandonment of the idea, and the squadrons were employed in the simple blockade of the Maas and the Texel.

The Dutch at this time were terribly pressed by the advance of the French armies by land and the alarmed state of the sea-coasts. They sued for peace without success, but did not feel themselves strong enough to attempt another sea-fight with the Allies. But their privateers were in operation, and one of them carried an English East India ship as a prize into Bergen. The English also made prizes, and hearing at length that fourteen East India ships were on their way home north of Scotland, they cruized by the Dogger Bank in hopes of intercepting them. The merchant-ships, however, got safely into Bergen without having been seen, and as winter approached, all the war forces returned into their respective ports.

At the beginning of 1673 the Dutch were full of a novel device, the idea of which has more than once since proved attractive, though I believe it has never been put in practice. They thought it might be feasible to block up the Thames by sinking vessels there, and for this purpose prepared eight ships with stones at

Amsterdam, which were afterwards taken into the Texel. I assume that the early appearance of the English fleet at sea prevented any attempts to carry this design into execution. I can find no reason stated, only that the attempt was not made.

In the early part of May, the Dutch fleet began to assemble in the Schooneveld, the anchorage off the mouth of the Schelde. De Ruiter is said to have failed in a design to intercept the English Canary, Bordeaux, and Newcastle merchant fleets in their passage into the Thames, and had then returned to the Schooneveld,* but it is not mentioned by my earlier and fuller authority. However this may be, there they were on the 22nd of May.

The Allies had joined their forces off Rye, and they, too, had new ideas as to what was before them, for they took on board a body of troops with the intention of effecting a landing somewhere in Zeeland. They had 84 men-of-war, and 26 fire-ships and small vessels. In order to prevent the tendency to hang back which had been displayed at Sole Bay the year before, the French were now distributed in the fleet, and not drawn together in a separate squadron as had before been the case. Rupert commanded the Red Squadron, D'Estrées the White, and Spragge, who had distinguished himself in the Thames in 1667, commanded the Blue.

The Dutch were 70 men-of-war besides fire-ships, under De Ruiter, Tromp, and Bankert; but their fleet was not complete, and was being gradually augmented. The Allies came in sight of the Dutch fleet thus anchored, on the 22nd May; but the weather was foggy, and the lie of the shoals thereabouts was not known to the former fleet. Soundings gained could not be fixed in consequence of the fog, and the advance on the Dutch was delayed, the allied fleet anchoring in the neighbourhood. Bad weather followed for two or three days, and still further postponed action; but on the 28th of May, the anniversary of the Battle of Sole Bay, both fleets were under way and came to action (No. 3 on the chart).

The battle began about 2 o'clock in the afternoon, and it lasted in the usual confused form† until 10 o'clock at night, when the Dutch claimed a victory, but anchored under cover of their shoals.

* Burchett, p. 408. *Lediard*, vol. ii., p. 600, who also seems to speak as if De Ruiter, with 42 sail and his stone vessels, was off the Thames on the 2nd May, and frightened off by news of a fleet in the river.

† "The two Royal Fleets made a motion, and having cast their squadrons into the form of a crescent made up directly towards the Dutch."—*Life of Cornelius Tromp*, p. 464.

Great slaughter had been done on the English ships in consequence of their being crowded with troops; and it must be added that it could only have been by entire miscalculation that these troops were on board, as taking ships crowded with useless men into a fleet action must have been well understood to be a needless sacrifice of life. It seems clear that the Allies must have assumed that the Dutch fleet would not appear at sea, and that they could have made their contemplated descent without interruption. They were now in this position, that while they had lost but two men-of-war, both French, and the Dutch had lost one, which was disabled, and sank during the night with great loss of life, they claimed a victory without being able to follow it up, and so disprove the Dutch claim in the same direction; for crowded with wounded, and embarrassed with the troops, they were not at all desirous to renew the action, however much it might be necessary to keep a watch on the movements of the Dutch fleet.

As a consequence of this inaction the Dutch recovered their spirits and hopes, and on the 4th of June they made good their claims by putting to sea to assume the offensive directly. They were near the Allies by noon, but these drew off so persistently to the north-westward, that it was not till 5 o'clock in the evening that the battle began (No. 4 on the chart). The various historians are in direct contradiction over the chief events of the battle, which were, whether the Dutch, as Cornelius Tromp distinctly says they did, chased the Allies to within five miles of Sole Bay, and were only prevented by darkness from continuing the battle,* or whether the English turned and drove the Dutch back to Schooneveld, which is the English statement.† It may be noted as something in dispute which cannot be settled here. What is material to note is that there was a second battle nine days after the first, in which the Dutch assumed the offensive, and that after it each fleet retired to its own shores.

Perhaps it may here be usefully remarked that one of the historians‡ not only admits the unwillingness of the Allies to come to action on account of their being hampered with their wounded, but claims that the Dutch, after their stay on their own coast, were reinforced and refitted in a way which was impracticable for the Allies at sea. This is, no doubt, possible, though it is denied by

* *Life of Cornelius Tromp*, p. 476.

† *Berkley*, p. 514. *Burchett*, p. 408. *Lediard* explains it, vol. ii., p. 602, by saying the Dutch being to windward were able to hold off, and did so.

‡ *Lediard*, vol. ii., p. 601.

the Dutch so far as any reinforcement goes ; but it illustrates the position taken up by a competent authority, not from his knowledge as a seaman, for he was not one, but from his experience as a naval statesman. This was the Duke of York's secretary, Sir William Coventry, and Pepys records his opinion in the following words :—" 30th (July 1666).—To Sir W. Coventry, at St. James'. I find him speaking very slightly of the late victory (the victory off the North Foreland, which was followed by the cruise upon the Dutch coast) ; dislikes their staying with their fleet up their coast, believing that the Dutch will come out in fourteen days, and then we, with our unready fleet, by reason of some of the ships being maimed, shall be in bad condition to fight them upon their own coast."* Not precisely contemplating the same circumstances, but still with a tendency to the same line of thought, Lord Howe wrote in a similar strain a hundred and thirty years later. Doubtless these views operated on both sides of the North Sea, and militated against any attempt at that persistent watching of Dutch or English ports which was so much enforced in later wars, and so notably on this very Dutch coast by Duncan. Both in liability to damage by weather, and in defective victualling, it must probably be admitted that the ships of the middle of the seventeenth century and those of the end of the eighteenth differed largely, and with disadvantage in the former period. The practice after this battle, and after so many others, of both sides retiring into port and leaving the sea open, must to some extent be assigned to these causes, though possibly more to mere custom existing till another custom superseded.

No ships were lost on either side in the encounter of the 4th of June ; but the Dutch authority states that the Allies admitted a loss of over 3,000 men, and this, if true, confirms the account of the crowded state of the ships, and supplies further proof of the reasons why they were not keen about close action. But, notwithstanding the lessons to the contrary which they would seem to have received, as to the great difficulty of making a descent on the enemy's shore until his fleet had been fully and finally dealt with, the Allies were still full of the project ; and having landed their wounded, they took on board 7,000 fresh troops, and put to sea again on the 17th of June.

But the Dutch meanwhile showed an advance in the art of naval war by detaching a small squadron of observation to the Thames,

* Quoted in *Life of Penn*, vol. ii., p. 412, already quoted in chap. iii.

under Rear-Admiral de Haan, who, on his return, was able to report having seen some 70 men-of-war at anchor off Sheerness, and of having heard that 30,000 troops were to be embarked at Tilbury Hope in preparation for a descent on Zealand. The Dutch found themselves unable to bring together sufficient naval force to make sure of fighting on something of an equality with the 60 English and 30 French ships of war which appeared before the Maas and Schevelling* on the 23rd and 24th of June. In proximity to the 70 Dutch ships ready in the waters of Zealand, no descent was attempted, and the Allies passed to the northward off the Texel, along the coasts of Holland and Friesland to Vlie, Ameland and the Western Ems, and then back to the Texel again.

The only claim made by the English historians to success in this demonstration is that it harassed the enemy's troops on the coast, and kept them continually alert; that it blocked up his ports, and endangered his returning East India merchant fleet, of which, however, but one was taken. On the other hand, a fleet crowded up with troops, which were made no use of whatever, was in almost a critical condition in case even the inferior Dutch fleet should come upon it.

The Dutch stood these insults and threatenings to their coast for a fortnight, and then, about the 3rd of August, about the time that the Allies got back off the Texel, they put to sea, and stood along-shore to the northward. Foul winds, and possibly great caution, hindered their progress, so that it was not till the 10th of August that the fleets sighted each other, and about eight o'clock in the morning joined in a furious and final battle for that command of the sea which had never yet fallen, and was not now to fall, fully into the hands of either power.

The Allies were, as before observed, 90 strong under the former commanders—Rupert, D'Estrées, and Spragge. But a trust was once more placed in the French, which they were once more and finally to betray. D'Estrées commanded the white squadron, which was composed entirely of his own ships. The Dutch were 70 strong, under De Ruiter, Cornelius Tromp, and Bankert. The fight that ensued is said by the author of *Columna Rostrata* to have been "like a general war of the elements," and it lasted till after sunset (No. 5 on the chart). This could not have been, considering the great numerical inferiority of the Dutch, had not D'Estrées from the very first held aloof and left the English and Dutch to

* Scheveningen, the port of the Hague.

fight it out while he looked on. Tromp was in the *Golden Lion*, and Spragge in the *Prince*.* These two fell upon one another, until both ships were so disabled that they shifted their flags to the *Comet* and *St. George*, and fell upon one another again. The *St. George* became a second ship disabled under the feet of the English admiral, and he then passed into a boat to go on board the *Royal Charles*; but on his way a shot cut his boat in two, and he was drowned. In other parts of the fleet equally stubborn contests were carried out, but in the end it does not seem to have been contested that the Dutch were victors. There was very slight loss of ships on either side; the English admitted a yacht sunk, and the Dutch only allow a loss of a few fire-ships, either sunk or "uselessly spent;" but there was great loss of men and officers. The English, besides Spragge, lost four captains, and the Dutch lost two vice-admirals, de Liefde and Sweers, with two captains, and many superior officers wounded. The destruction of men in the English fleet was said to be very heavy, no doubt from their crowded condition. The Dutch claim to have kept the sea till the 12th September, without sign of any attempt by the English to contest their substantial victory.

This was the last act of the war. The English nation was sick of a Catholic alliance against a Protestant State, and the navy was heartily sick of consorts in battle whose policy it was to induce them to enter into action with inferior forces of their own, and then to leave them to do the best they could. Peace was concluded in February 1664, and the next time destiny brought English and Dutch into hostile naval operations, she brought them in side by side in the third possible change of alliance between the three great European nations. It had been first Dutch and French against the English, out of which very little had come. It was next French and English against the Dutch, out of which only a little more had come. It was next to be English and Dutch against the French, out of which a great deal was to come.

I have, perhaps, sufficiently remarked upon the leading characteristics of the first and second Dutch wars, and how the first was carried on with the idea that the command of the sea was not a primary necessity; that an extensive commerce, which was in a sense the life-food of the State, might be protected by forces which were only large enough to contend on a fair equality with the enemy's war-ships bent on the capture or destruction of the very

* The historians say the *Royal Prince*, but it was probably the *Prince*, 90, built at Chatham in 1670. See *Charnock*, vol. ii., p. 426.

thing which the Dutch forces were assembled to protect ; how the enemy, the English, with a smaller commerce, and consequently less distractions, were able to devote themselves almost completely to assuming the offensive ; how, after pursuing this policy throughout the first war, the Dutch, learning their lesson, wholly changed it on the outbreak of the second war, and practically held their own, though with marked signs of inferiority, in a direct contention for the command of the sea, throughout the second war ; and then, having reached firm ground in the wanderings of experience, held to it on the outbreak of the third war, and maintained it with really improved success throughout its course.

These are broad principles which lie, as it were, in prominent boulders on the plain landscape, as we survey, in the brief and not keenly critical or too closely investigating way we have done in these chapters, the further formation of the rules of naval war. As to what may specially come from a comparison of the general conduct of the third war with that which characterized the second, I think we may almost say that impatience with the method adopted in the second war was manifested on both sides in the third. There had been a descent on the shipping in the Vlie, which had been extraordinarily successful to the English and extraordinarily damaging to the Dutch. There had been a descent by the Dutch on the dismantled war-ships of the English at Chatham, which, though quite as successful to the Dutch, could only have been made up by the counters representing insult, to the damage they had suffered in the Vlie. Then, again, there had been Tiddiman's unsuccessful attempt on the merchant fleet at Bergen, and men must have considered that probably a heavier force would have succeeded.

Altogether, when the third war broke out, there must have been a good deal of floating feeling about in favour of something more dramatic and telling than a continuation of the long string of pitched battles, which wound its way back through twenty years of remembrance ; and so there is soon on the side of the Dutch the idea of snatching an advantage, not by necessary exertion and sacrifice, but by something with a preponderating element of chance in it. So the stone ships to block the Thames are prepared, and so, if some of the historians are right, does the scheme come to nothing, because the presence of superior English force eliminates chance. So do the English take on board troops for a descent on Dutch shores, as it seems, on the chance that the Dutch fleet not interfere ; and then, after it is found how much the

Dutch fleet does interfere, and has to be fought off the Schooneveld twice; and how heavy the loss of life has been in consequence, so far as we may gather, of too great reliance upon chance, even then this desire of a descent favoured by chance is not weakened. Fresh troops are embarked, who appear to have been useful as targets for the Dutch chiefly in the one operation—a general action of the old type—in which it was found feasible to engage.

It may be difficult to say with the materials before me—there may be none, in fact, which would give us the exact truth—but yet there is ground for believing that men did not lay sufficient stress on the circumstances surrounding the successes of the Vlie and the Medway, and hoped for the successes without the presence of like conditions.

Sandwich need have had no apprehensions in detaching Tiddiman early in August, for he was there himself with a full and victorious fleet, the Dutch having been, not two months before, frightfully beaten back into their ports, and full of the confusions, bickerings, and divided counsels, that the beaten side is prone to.

When Rupert and Albemarle detached Sir Robert Holms on the peculiarly successful enterprise in the Vlie, it was but a fortnight after the Dutch, thoroughly beaten in the battle off the North Foreland, had been driven behind the shelter of their shoals, leaving the victorious English entirely unopposed at sea; and when the Dutch made their appearance in the Medway, and carried off and burnt some of our finest war-ships, it was because the English had deliberately disarmed and unmanned those ships, clearly anticipating, and recording their anticipation three months before, that they would be attacked in the way they were. And on such grounds, the Dutch would have shown greater wisdom and prudence had they postponed all idea of blocking up the Thames in 1678 until they were assured of being able to protect the detachment employed in the duty; and the Allies would have shown a clearer apprehension of the situation had they been fully prepared to guarantee a landing without interruption from the Dutch fleet, without loss of communication with their own ships after landing, and with security for their re-embarkation. The histories do not tell us why these troops were so uselessly and so slaughterously carried about for two weeks on the Dutch coast, but reading between the lines, we seem to see that it was the want of these guarantees that enforced it.

One of the earlier historians considers that the advance of the Dutch to fight the battle of the 4th of June was an unusual proceed-

ing on their part, "for, from the first action against the English in these seas, anno 1652, till this time, they had seldom voluntarily engaged out of sight of their own coast; nor had they ever been the aggressors in any one considerable fight, except twice, when they had the fortune to surprise the English, first in the Downs, in the time of Blake, and then in Souldbay, the former year (1672)."* I hardly think we can say that this was so, unless we injudiciously mingle the question of strategy which would determine the locality of the battle, and the question of tactics which would determine its conduct. At present I hardly touch at all upon the tactics pursued in these wars, and may dismiss Collier's observation with the remark that inasmuch as it generally happened that the Dutch were to leeward, not by their choice, but by the accident of wind, it was hardly in their power in those days to become tactically the aggressors. Strategically, I think, we must rather accept the opposite view, and say that the Dutch in the three wars showed latterly a greater and not a less tendency to fight near home. In the first war, the last battle off the Texel was the only one which could properly be said to have been fought on the Dutch coast, and in the second war, the capture of the cruisers by Robertson off the Texel was the only fight on that side of the water. In the third war, on the other hand, three out of the four great battles were fought on the Dutch side of the North Sea; and I hardly think it was choice on the part of the Hollanders. I should say rather that a review of all the circumstances would show that they felt a decreasing power as each war went on, so that if the English had of themselves been as determined to beat the Dutch off the sea in 1672-73 as they had been in 1652-54, the war might have taken a different form, and the Dutch might have been pressed closer home than they were; but the third war was distasteful to the prevailing opinion in England, and the alliance with France served as an economy, not as an increase of force.

Without going more thoroughly into statistics than is conformable to the scope of this work, I cannot say how the question of the protection and loss of commerce may have affected exactly the conduct of the war and its popularity. My principal authority tells me that in the third war the loss of merchant ships by capture on both sides was considerable, but that it was greater on the side of the English than on that of the Dutch, simply

* *Columna Rostrata*, p. 238.

because the Dutch prohibition left only the homeward-bound ships open to the English attack.* The immense destruction at the Vlie, and the considerable captures of the ships from Bergen, had in the second war probably far over-balanced the scale as against the Dutch; while in the first Dutch war we might almost say that the main effort had been immediately directed upon their enemy's commerce by the English. But if, while the battles of the war fleets, in consequence of the defections of the French, were fought without adequate result, and if English commerce had been suffering to a greater extent than that of the Dutch, there was some business objection to join to the moral one, and demand a cessation of the third war. English merchant shipping was immensely on the increase, as in 1688 it was estimated to have doubled since 1666, and if the Dutch by the prohibition of their own commerce were able to make the English losses proportionately the greater, the gain in so acting could be demonstrated.

All these wars were begun and ended on the sea. Even the successful raids that were made into territory extended hardly beyond the water territory, and the prizes drawn were water prizes. We may say it was the near equality of the combatants in every way which kept the battles off the land. When it was found difficult to get through with arrangements for even mere rushes at the land, the organizing of great expeditions such as Spain had set her heart on was out of the question. The wars adhered to the more unstable element simply, perhaps, because neither side could get off it.

While all that was really important in the drama was played in European waters, the byplot circulated in more distant parts of the world, wherever there were English or Dutch interests to attack or defend. In the first war, Van Galen on the one side and Commodore Bodley on the other fought in the Mediterranean over the right to carry on their own commerce unmolested, and to prevent the other from carrying on any at all, and did it with varying fortunes.

And then the old system of cross-raiding, begun in an irregular war of reprisals, was ushered in and continued amongst the distant possessions of both States in Africa and in the West Indies. Sir Robert Holms, entirely unopposed because no attempt or preparation to oppose him was or could have been made, ravaged down the West Coast of Africa, as already mentioned, to Cape

* *Columna Rostrata*, p. 250.

Verd, Goree, Elmina, which withstood him, and Cape Coast Castle. Then he passed over to New Netherland, as New York was then called, and reduced it, because there was nothing to prevent him doing so. And then came the other side; for news reaching Holland of the mischief that had been quietly done, the Dutch Government proceeded to undo it again, or to do it over again equally secretly. De Ruiter, then at Cadiz, slipped away quietly in Sir Robert Holms' footsteps, to retake, if possible, all that had been taken. He was, in some cases, successful, and he took the original English post of Fort Cormantin, though Cape Coast Castle and Chama held out against him. Then passing over to Barbadoes, he found himself not strong enough for more than the capture of merchant ships which were there, and at Monserrat, Nevis, and Newfoundland, after which he returned home to be placed in command of the home fleet as we have seen.

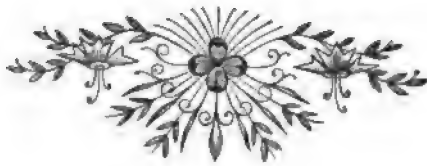
But later on, in 1666-67, we had that transfer and re-transfer of islands in the West Indies from State to State which, from beginning to end, seems to have been characteristic of war in those latitudes. The English began by taking St. Eustace, Tobago, and other places from the Dutch. Then the Dutch, under Commodore Quiryns, made themselves masters of Surinam. Next the French and Dutch together all but possessed themselves of half the Island of St. Christopher's. A naval expedition from Barbadoes, to restore things at the former island, failed on account of dispersal by wind. The Dutch still gaining strength, Evertson recovered Tobago, and made many prizes on the coast of Virginia. But then Sir John Harman arrived from England at St. Christopher's with twelve frigates, in March 1667. This made a concentration of the French and Dutch necessary, and stopped the raiding till it was decided which nation was to have the control in these waters. There was a general action in May off St. Christopher's, as to which the immediate results are disputed; but the ultimate result was the separation of the French and Dutch, leaving the English in command of the sea, and enabling them to retake Surinam.

An early operation of the third war was the recapture of Tobago by five or six ships and a regiment of foot from Barbadoes, under Sir Thomas Bridger. On the other side, the Dutch population possessed themselves of the Island of St. Helena, and drove the English Governor and people into the ships at anchor. But Commodore Mondy with four ships-of-war, on his way to offer

convoy to the East India fleet, wanting fresh water and perceiving he must retake the Island to get it, proceeded to that business and concluded it.

These special features of naval war will probably have to be reconsidered in some detail before we have done with them, in order to get more closely at their principles. We may say that in all the wars where the command of the sea was incomplete, and where territories which might be captured were tenable after capture, this kind of thing went on. I believe, so far as I can see, that at the moment all that is before us is to note how closely conquest follows the naval steps, and how all other power is, as it were, swallowed up by naval power. It is not, of course, that even in this very early stage, we do not see how naval force may be rendered unable to effect its purpose; but the general result seems to give such great preponderance to him who has the power over the water, and each possessor of this power seems to sweep all up as it progresses, leaving it to be again swept up by the next naval possessor of the broom.

(To be continued.)



Sunny Memories from Las Palmas

(GRAND CANARY).

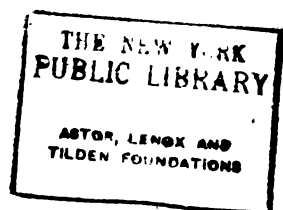
By CARR STEPHEN, B.C.S.



FROM a boat riding at anchor opposite to the old mole of Las Palmas, on a calm day, with a clear blue sky above him and a deep blue sea reflecting the sunlight in innumerable ripples around him, the spectator commands an imposing view of the capital of Grand Canary. It stands on the extreme north-eastern corner of the island. On the right of the spectator, at a distance of a little over a mile, the panorama is bounded by the miniature peninsula of Isleta, with its three sombre peaks rising to a height of 817 feet from the level of the sea. The hills of Isleta are marked, here and there, with faint white lines showing the roads and footpaths, while a few white spots, few and far apart, indicate human habitations, and a signal tower which crowns the summit of the highest peak. Under the very shadow of the Isleta, as seen from a distance, is the Puerto de la Luz, and the breakwater which, when completed, will form the great Harbour of Refuge. Under the shelter of the unfinished walls of the breakwater are anchored small boats of all shapes and equipments; while further out, on the high sea, may be seen the great Atlantic steamers, and now and then a man-of-war, resting in impressive silence after long and, perhaps, perilous voyages from distant ports of both the old world and the new. The position of the spectator is at the centre of the curved coast-line which begins with the hills of Isleta on the right, and ends on the left in a cluster of houses, which appear to dwindle in size as they approach the sea. The space between the two extreme points of this panorama is filled up with long lines of low-roofed white and yellow coloured houses which, starting from the port, increase in size and number as they approach the centre of the curve, and thence they multiply rapidly till they fade in the



LAS PALMAS



distance as they seem to touch the sea. Over this forest of house-tops towers the great cathedral of Santa Ana, next to the "everlasting hills" the most prominent object in the panorama of Las Palmas; and second only to the cathedral, both in grandeur and prominence, may be seen the roof of the new theatre, a stately pile, but even more remarkable for the finish and beauty of its inner decorations than for the grandeur of its exterior. The hills on the west of this view form an amphitheatre, in which nestles Las Palmas, and are studded with small white cabins and caves which still afford shelter to the poor, and which form the farthest limit to which the hills have been utilized by man. Such is the aspect of this rising and enterprising city when seen from the sea, while a more intimate acquaintance with its wards and districts does not detract from its claim to our attention. Landing at the port, and driving from the restaurant hard by to the Protestant cemetery, a distance of about five miles, the tourist has a cursory view of the most important buildings of Las Palmas. From the Puerto de la Luz we drive through a street formed by clean-looking and single-storeyed houses, by coal depôts and their out-offices. At a short distance from here, and nearer the hills, are the residences of the better class of *employés* of Messrs. Swanston & Co., the firm engaged in the construction of the breakwater, of the coaling companies and of ship agents. We drive past the handsome reservoir of the waterworks, opposite to which is the half-finished new pier, and from here the road runs straight to the city of Las Palmas. With a few gaps at short intervals, this street of new houses and wharfs is continued to the English Park and the Military Government Office, where Triana, the commercial district of Las Palmas, begins. Here the houses crowd together in large blocks, but they are an improvement on those in the port both as regards solidity and finish; they are chiefly occupied as the offices and residences of the leading merchants of the place. Beyond this is the new theatre, and as we still journey in the appointed direction we drive past the magnificent cathedral and the stately Municipal Hall, and the handsome Plaza Sta. Ana which divides them. Leaving the local jail on our left we drive past the buildings, once the residence of monks and friars, whose supremacy in these islands is over. Still pursuing the course almost due south, we pass the last church, San José of the old city, and beyond it the road runs under the hills on the side of which stands a high walled enclosure with a covered gateway, which is the Protestant cemetery of Las Palmas.

The impression derived by the traveller from even a cursory inspection of the place is that Las Palmas is an old town, once only respectable, but now beginning to acquire the vitality infused by a growing spirit of commercial enterprise. The old district (Vegueta) of the town is a topographical curiosity well worth seeing; it might geographically be in Spain, as in fact it is an interesting portion of the Spanish empire. On the other hand, the new district Triana is characteristically modern: here reign "noise and unrest," a busy life flows through its broad well-paved, well-ventilated, and well kept streets. Triana is a brighter and more comfortable quarter to live in, while Vegueta is more venerable; but it is certainly less pleasant as a residence.

Las Palmas is in a state of sustained progress: it is progressing materially, socially, and politically, but such is the recent origin of its material prosperity, that there is hardly a building in it of any importance which can be said to have reached completion. The breakwater is progressing towards it, so is the new pier, so are the new streets. Perhaps the English park may be said to be finished, but its opposite neighbour, the military governor's office, is being completed. The "Grand" Hotel is expanding; the New Hotel has only had its site demarcated: the New Theatre is being decorated, the Municipal Hall is being renovated, the Hall of Justice is an unfortunate combination of a shabby outside and a gilded inside, but the grand old cathedral left unfinished in A.D. 1500, is not likely to be finished in the nineteenth century, when money is wanted for mercantile ventures by a people in whom the love of commercial enterprise is becoming a ruling passion. The old mole, beyond which we had stationed our spectator, is doomed to the fate of most "old things" which Time had turned into "dormant," and the sea does the work of destruction certainly, even if slowly. During the unsettled weather of last April, the sea in front of Las Palmas was not less stormy than it was picturesque, and all over the long beach white and tumultuous waves broke their fury, and gave the town, from the spectator's point of view, a look of weird grandeur.

The public buildings of Las Palmas deserve some notice, even from one who records only "memories" and has no ambition to supply materials for archaeologists or the students of architecture. The first on my list, both for its antiquity and architectural claims, is the cathedral, of Santa Ana. Its foundations were laid about the A.D. 1500. Most cathedrals have taken years to finish, and had was present in the minds of those who undertook or

helped in the building of Santa Ana, for its completion, after the lapse of nearly four centuries, is as yet a thing of the future. The building is lofty and massive, and not devoid of some pretension to grandeur ; it faces the Municipal Hall, and is almost as wide as the Plaza Santa Ana, of which it may be said to form the eastern boundary. The front of the building consists of two lofty dome-shaped towers, flanking the main entrance, which consists of three high doors, over which is a wall pierced with a circular window in the middle and two others arched on either side of it. On the top of this wall there is room for a third tower, which was to rise above the flanking towers, and which the pious Canarians hope will one day be finished. The grand plan of the cathedral, which is supposed to exist, is not accessible to those who are anxious to see it, and according to tradition, the present building is a little more than two-thirds of what it was originally designed to be. The interior of the cathedral is even more interesting than its exterior ; the roof is supported by lofty, light, and fluted stone columns, but much of the imposing effect of the Gothic interior is impaired by an unsightly square masonry structure in the middle nave, which provides room for the organ and the choir, and where the canons assemble on the way to the chancel. The light inside the building is sufficient and agreeable, and is admitted through a lantern dome. The chancel decorations do credit to those who planned them, nor is there any want of taste in the chapels with which the cathedral abounds.

On the walls of the interior hang oil paintings, some of them decidedly works of merit, representing the Passion of the Saviour, and if the legend of St. Christopher and the infant Saviour must be represented in the sacred building, it would not be amiss if the subject was painted in some style in keeping with the Passion paintings, and the travesty of it in its present outrageous form be removed. The vestments of the high dignitaries who have, from time to time, ministered in this cathedral are well worth inspection ; they show great taste and skill in their workmanship, and the majority of them are of considerable value. In the wardrobe which contains these garments is preserved the banner which was carried into battle against the natives in their final stand against the arms of Spain. This, however, was only the verger's contribution to the history of the conquest of the Canaries, and the antiquity of the relic may be admitted without quite pinning one's faith to the fact of the *last stand*. The jewelled chalices, patens, and other sacred vessels also require the visitor's attention, though

the anatomical specimen—a bishop's heart preserved in a jar in spirits of wine—promiscuously handed out to the visitor without any warning, may one day slip through the hands of a nervous woman, and may be desecrated unintentionally. The crypt is also an interesting place and should not be missed; the catacombs, where repose the bones of bishops and canons, are full almost to overflowing, and the remains of the sacred personages who have died within the last few years rest with those of humbler mortals in the Spanish cemetery. The crypt, like the rest of the building, is well lighted, and the visitor may notice with pain a very apt illustration of the proverb which couples contempt with familiarity, in the conduct of the verger, who, perhaps, suffering from a chronic bronchital attack relieved his throat, and considered no place too sacred for his comfort. Some bishops and other saintly personages lie buried within the walls of the cathedral, but none of the brave men who fell in the protracted war with Spain have been accorded similar honours.

Opposite to the Cathedral is the Municipal Hall, a very fine and large building with a flight of wide stone steps in front. On the grand staircase which leads to the upper floor there are hung several royal portraits; and here are the rooms in which the Municipality meet, and where all important meetings are convened. The Popular Society, for the promotion of the interests of the island, a declining institution, also have rooms in this floor allotted for the use of their members by the Municipality of Las Palmas. The decorations of the Municipal Hall must be a very costly work, but the practical Canarians are sometimes not above devoting more money to "vain pomps and glories" than befits men gifted with strong common sense.

On the third floor of the building is the public museum, filled with a large collection of specimens of the natural history of the island and a larger one of Gaunche remains, with a variety of other curiosities which are both instructive and uncommon. The museum of Las Palmas, the value of which is not unknown to Europe, owes its existence to the sole efforts of my valued friend, Dr. Gregorio Chil.

The Palace of Justice, with its church, may justly rank in importance after the Cathedral and the Municipal Hall. It is entered through a covered gateway; the courtyard in the centre of the building is filled with ornamental and flower plants, but, as if the administration of justice was too serious a business to allow time for any other occupation, the little garden bore evident signs



A Street of Balconies.
& The Cathedral.

H. H. H. H.

of neglect. Both the civil and criminal courts are accommodated in this building; the magistrates sit in the ground floor rooms and the civil judges in the upper. The courts are tastefully furnished; that of the President is decorated with gilded mouldings and velvet and silk upholstery, and it is also furnished with a retiring room. In this floor are also the record rooms, the robing room for counsel, and the registry offices. The beadle, the vergers and the messengers belonging to the courts are attired in gorgeous liveries, and were enjoying the rest which is common to the existence of such functionaries all over the world. The consideration shown to all strangers visiting these places is remarkable, and within the precincts of the Palace of Justice it is only surpassed by the profound veneration shown to the judicial officers themselves. We were in the covered gangway when the President, an aristocratic and scrupulously well-dressed gentleman, arrived, and his presence was proclaimed by the officers on duty at the gateway in loud and solemn tones, and with short intervals this duty was taken up by the officers in the corridors and other parts of the building. The situation of the Hall of Justice is not favourable to its outward appearance, for, although it is built right on the sea, it is entered through a comparatively narrow street of very common-looking houses.

The hospital also stands in a narrow street, but there is a decided look of a public building about it, and those who have a knowledge of the working of the institution speak in the highest terms of the Sisters of Charity, who so cheerfully devote their time and attention to the cause of suffering humanity. For such unselfish devotion to a duty not pleasant, however praiseworthy it may otherwise be, no acknowledgment on our part can be too great. The new theatre is outwardly a finished building, but the elaborate decoration of its interior will, it is feared, require some years to finish. The boxes are being gorgeously got up in gilt and most beautiful carvings, and if the ornamentation be completed in the same style as the small portion that is now finished, the new theatre of Las Palmas will not suffer in comparison with similar buildings in London or Paris.

The care of the projectors of this building has provided in the New Theatre a concert room, which is very likely to be used oftener than the stage; the latter must depend for its legitimate employment on foreign companies of performers. The old theatre, which is still in use, belongs to the Las Palmas Club, and is entirely utilised for concerts and balls; the "wallflowers" occu-

pying the boxes and the galleries, the stalls being appropriated by the dancers.

The market places, all of which are more or less protected from the inclemency of the weather, may well find a place in a notice of the public buildings of Las Palmas. The fish-market is a large pavilion-shaped building, and is kept clean and almost sweet, or so far as a building dedicated to such a purpose can be. The ventilation is perfect, and as the walls are simply venetian blinds, the use of marble slabs and an unlimited supply of water, help to improve the sanitary condition of the place. On one side of the pavilion is an open shed which may be called the market for miscellaneous goods, such as wickerwork, shoes, tin pots, old clothes, and sweet-meats. Opposite to this building is *the* market of Las Palmas, well stocked with fruits, nuts, vegetables, poultry, beef and mutton, grain and flour, and every conceivable article of food for which there is a demand in the island, or the countries where she exports her agricultural produce.

The building itself is a remarkable addition to the interesting sights of Las Palmas. It is entered by a covered gateway surmounted by a clock set in an ornamental arch. On either side of the gateway are rooms, the back walls of which abut on the road and the doors opening into the market. These rooms are flanked by massive walls pierced by a small wall in the centre, admitting light into what may be called the store-room. The stalls are very conveniently arranged, with walks in the middle, and a fairly large crowd might be accommodated in the building without crush or any other inconvenience.

To the genius and spirit of enterprize of one of her sons, Las Palmas is indebted for her works of public utility; I refer to the Provincial Engineer-in-Chief, Don Juan de Leon y Castillo, who enjoys the confidence of his countrymen as well as the gratitude of the tourists, who can now see all objects of interest in Las Palmas with little expense and no discomfort. There are eighty miles of road for which the Canarians are indebted to this energetic gentleman; they are beautifully constructed, macadamized with slate-coloured stones, fairly well fenced with small stone pillars, while the sides are planted with trees which will not only protect the roads, but improve and embellish them as drives. The tunnels and bridges on the roads are constructed with the same skill, and with due regard to their solidity. These public works will continue for long years to come, as a memorial of their able and patriotic constructor. One could wish the old roads of the city were

modernized, and the tortures of a drive minimized for the benefit of those whom business or pleasure compel to use them. Don Juan's intentions in this matter are pretty evident, for wherever an opportunity for repair occurs, the old road is renewed to the standard of comfort of the new ones. The roads over the hills are carefully protected in places where the fear of accident to travellers is evident, and in all improvements there has always been an attempt to blend the useful with the ornamental.

The waterworks, which supply the residents of the port and the workmen who daily resort there with pure spring water, were for years felt as a crying want, and have only recently been finished. Like all the other useful public works of Las Palmas they owe their existence to the forethought of the chief engineer. The reservoir is a large massive stone building with an imposing and well executed façade looking on the sea; the water is drawn from the hill-springs of Las Palmas, and carried through the city by well built aqueducts to the reservoir. While this water used to be wasted (before its appropriation to its present useful purpose) the inhabitants of the port were put to no ordinary inconvenience for want of drinking water; their supplies were uncertain and only obtained at a cost which was seriously felt by the not over-well-paid workmen. A very pretty garden laid out in front of the waterworks now forms an interesting object in the sandy tract which lies between the port and the suburbs of Las Palmas.

In front of this garden is the half finished pier, which will be completed with dispatch when the breakwater is finished and the pier works can be carried on without fear of obstruction by the sea. When completed it is to be 719 metres long and 20 metres wide, and will be a pleasant promenade for visitors from the city; it is incomparably superior to the old pier or mole, which is already more or less deserted. The breakwater when finished will run out 1,050 metres into the sea, having a width of 9 metres; it will be a magnificent work, and is likely to revolutionize the commerce of Las Palmas. The harbour of refuge will raise that city to the dignity of the second port of the Spanish Kingdom. The progress in its construction has hitherto been both rapid and satisfactory, and the work will be finished, it is hoped, about three years before the stipulated time, which I believe is seventeen years from 1882. The cost of this work is limited to £346,000 payable by annual instalments of £20,000 each. The construction of the breakwater and the pier is entrusted to a London firm of substance and enterprise, Messrs. Swanston & Co., of Pountney Hill. Huge blocks of

concrete are daily manufactured and arranged in order near the breakwater mole, and about fifteen of these blocks are being daily laid on the bed of the sea ; the work of making, removing, and laying down the blocks is done by machinery.

The old mole in front of the English Park, though still used by shippers of certain goods, will probably be abandoned when the new works are finished. Already it has been seriously damaged by the sea, and as there is no attempt made to repair it, in the course of a few years it will be an unsightly ruin. It seems at present chiefly to afford seats for anglers, sailors, and the city "arabs," and a rendezvous for old men who meet here for converse ; on a stormy evening inquisitive people find amusement in the chafing of a troubled sea which often breaks over the bulwarks of the mole. The huge stones with which the mole was constructed, have in some cases been removed, displaced, or piled up in eccentric shapes by the sea ; they present a romantic appearance, though their condition is not calculated to promote the pleasures of promenaders.

Two projected public works of importance, which we hope the present generation may live to see completed, are the lighthouse of Las Palmas and the Lazaretto of Gando ; the former is certainly more urgently required, but both are works of utility which should not be neglected.

The gardens of Las Palmas form an important factor among the attractions of the place ; those on the hills of the lovely district called, *par excellence*, the Monte, and removed from the heat of the plains, are simply charming, both as regards their pleasant situation, and the abundance and variety of their rare and choice flower plants and ornamental and useful trees. There are few gardens from which a view of the sea is excluded. Here may be seen flowers both of the tropics and the temperate zones, and they grow in such luxuriance and perfection as to beggar description. Without tiring our readers we may mention roses, geraniums, heliotropes, fuchsias, as only a few of the rich varieties of flowers which grow so luxuriantly in the gardens of Grand Canary or Monte. Here are walks protected by vines which, in season, are loaded with grapes ; coffee trees with berries in profusion ; almond trees bearing fruit both large and abundant ; figs and oranges which are not surpassed by the produce of any country in the world.

Ornamental grass adds not a little to the appearance of the flower beds, and the difficulty here is not so much to promote

as to control growth. Care undoubtedly is taken of the trees in the gardens, but the laying out of beds is a secret yet to be learnt by Canarian gardeners ; the wonder to me is that trained gardeners are not employed by the owners of those lovely country seats, to teach the natives how to lay out and manage a flower garden. I do not recollect having visited a single garden, with the exception of that of Mr. Millar, the British Vice Consul, which could not be considerably improved and made to look twice as pretty with a little taste in the gardener. In this connection it would be impossible not to mention the name of Don Augustine Perrichet, chief among the two or three men to whose genius the gardens of Las Palmas owe whatever they possess of artistic beauty.

There is no attempt made at arrangement of flower plants in beds ; there is very little done to make a plant produce good flowers as against a multitude, but the overcrowding of beds with flowering plants is a fault not unknown to gardeners in India. In every direction there is room and opportunity for improving the garden and utilizing its produce, but abundance is preferred to quality, and but for the fact that this abundance is of some of the prettiest flowers known to botanists, the gardens would simply be a wilderness of verdure.

Everywhere the visitor is received with the greatest courtesy, and, if inclined to accept presents, he may take home a supply of flowers which would decorate a large drawing-room.

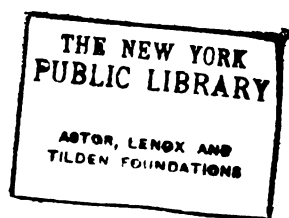
The gardens in the plains are also well supplied with flowers, but here the ornamental trees are larger in size and perhaps more numerous. Among the fruit trees we have the bananas and oranges, and almost every fruit tree of English orchards ; of the simply useful ones we have the cactus, on which cochineal insects are reared. There are fields of banana, as there are fields of cactus, but the latter are planted outside the limits of what may be called the garden proper. Of the gardens in the plains there are two which deserve special notice ; that of Don Cayetano Lugo and the so-called English park. The latter may be disposed of with a few words : its situation is perhaps its greatest recommendation, as it abuts on the main road on one side and the sea on the other. It is accessible on three sides, and the fourth is formed by a low wall which was evidently intended to demarcate it from the beach. It is well furnished with garden seats and is lighted up at night with oil lamps, of which there is a sufficient number in the park. The flower beds are laid out without much regard to taste, but Nature has done her part of the work with her

usual indulgence in these islands; the geraniums with which the beds are over-filled, grow almost wild, and among the large trees we noticed some pretty palms, cactus, two dragon trees and half-a-dozen others of the *ficus* tribe, and not unlike the Indian mango; of the latter we saw some good specimens in the gardens of Tafira. The walks of the park are kept in excellent order, as they should be, considering that it is resorted to by loungers at all hours of the day. The garden of Don Cayetano would be quite a paradise on earth if its grand palms, dragon and other trees of great beauty and size, had been planted with some regard to order. The garden is over-crowded with trees which are numerous enough to embellish a large park, and if properly planted they would have a chance of being admired as they deserve to be. The garden is frequented by birds, which the kind owner will not allow to be molested; some of the copses were gay with the sweet notes of warblers, and such was their "shocking" tameness that they drank water out of the Don's tank and allowed visitors to admire them in their nests. The garden was lively with never-ceasing music. On a terrace above this, where there is also a garden although on a smaller scale, is the house of the Don, and here the grand old man may be seen in his fez and an "Eton" suit of rough tweed, doing all he can to give the visitor a warm welcome. Don Cayetano has the fascinating manners and dignified bearing of a gentleman, and may boast of the best blood of the warriors who conquered the island for his country. It is a great pity that the approach to this lovely garden is enough to destroy all its pretensions to being what it really is, one of the sights of Las Palmas. It is approached through a lane which has nothing to recommend it, and before the visitor can see anything of the garden he has to pass between fields of cactus on one side and of bananas on the other, neither of which can be called a pleasant sight. Yet there is no obstacle in the way of the Don to extend the garden to the public road, whence a good view may be had of his handsome estate.

The wages of labour have notably risen, and with new industries springing up (as they have done within the last decade) the improvement is likely to continue. Agriculture draws a large number of labourers and the manufacture of the raw produce draws more. The sugar manufactories afford employment to hundreds, and but for the prohibitive duties—the double tax on their manufacture and export—the sugar mills and the distilleries of the island would have been doubled and Grand Canary would have carried on a



A GARDEN, LAS PALMAS.



lucrative trade in sugar and rum ; but the interest of the island is not consulted, and what would have been a thriving industry is crippled by over-taxation. In the produce and manufacture of tobacco thousands of men and women find their means of living, and if Spain keeps her contract with the manufacturing firms, the days of cochineal prosperity may be equalled by the demands created by the new industry. The cultivation of tobacco, the preparation of the leaves for the manufacture of cigars and the manufacture of cigars are the several sub-divisions of the tobacco industry.

Cochineal still affords employment to the working men of the island, but not in any degree like what it did fifteen years ago, and as in the case of other declining industries a brighter future is prophesied for it ; when or how it will come is unknown.

Besides these, the employment of labour in the produce of fruit is considerable ; with the increasing demand for Canary bananas, oranges, tomatoes, &c., the picking and packing of fruit for export will require skill and attention, and it will be a paying work for men who have acquired special aptitude in it.

Carting is already a separate branch of labour, for the benefit of small capitalists who can keep cattle and build carts. The streets in the Triana are fast becoming unpleasant places for those who love quiet. The carting of materials for builders, of supplies for the residents of the port, and for the steamers which daily visit it keep hundreds of working men in active employment. When we come to consider the fact that the number of vessels which now touch Las Palmas is almost treble what it used to be not many months ago, this branch of the local industries is likely to flourish with the commercial prosperity of the island. The arrival of the Spanish mail steamers is the signal for a flow of carts from the city to the port ; and in a lesser degree this excitement is kept up by the daily arrival of traders from all parts of the world.

Building is another industry which has of late more than doubled its demand for labour. Houses are springing up between Triana and the port, which ere long will connect the two places by a street of buildings which, if neither palatial nor showy, are the best evidence of the growth of prosperity among the working classes. The breakwater, the new hotel, and the thousand and one improvements that are going on in the old and new districts of Las Palmas will find employment of a healthy character for thousands, and in course of time there will be found many among them who rank among the skilled artisans of the world. Those who have visited

the public buildings of Las Palmas will readily believe that the local masons and carpenters require nothing for the encouragement of artistic work but a demand for it.

The fisheries of Las Palmas, now suffering from the collapse which follows spasmodic enterprises, will soon engage the attention of the Canarians and they will have to supply not only fishermen but builders of fishing boats. Many such boats are already borne on the port registers, and with the Spanish demand for Canary sardines the fishing establishments will furnish a capital market for labour. Perhaps the most important local industry is that which finds work in connection with the coal companies of Las Palmas. The loading and reloading of coals, the working of coal lighters and floating coal depôts, the construction and preservation of coal wharfs, and the supplying of coals to traders and mail boats which come to Las Palmas for that purpose, keep more men employed than any other industry of the island. When the Harbour of Refuge is completed, and trade between Europe and South America expands, the importance of Las Palmas as a coaling station will be the envy of the Spanish ports.

(To be continued.)



Reminiscences of the Siege of Delhi.

By MAJOR-GENERAL WEBBER D. HARRIS,

LATE 104TH BENGAL FUSILIERS.

IV.



THE next morning, when taking a walk, I saw the bodies of the three princes who were captured with the Emperor and whom Hodson had shot with his own hand. They were exposed on the platform at the Head Police Office on the Chandee Choke. One was quite a boy, with a pretty, girlish face, and I was surprised to hear it was chiefly by his orders that the atrocities were committed when the city first fell into the hands of the Sepoys.

We were soon ordered to change our quarters for a house half way between the Lahore and Turkoman gates. Here we took possession of another large native house, and the men, having nothing better to do, went roaming about the city. We heard that several of them had made great discoveries of hidden wealth; one man was said to have given £5 to each sergeant, and £1 to each man in his company. He afterwards deserted, and went over to Meerut, where he lived in style for a fortnight, till we sent a party to fetch him.

It was just now that officers whose regiments had mutinied began to flock into Delhi seeking employment. Had they joined us six weeks before we should have been very glad of their services; but now, all being over, they only came to see what was going on, and were allowed to share in our prize property without having seen a shot fired. I cannot trust myself to write about it; and in addition we heard, to our dismay, and it afterwards proved only too true, that the Government had decreed that a rabble of 20,000 natives, assembled in the district about sixty miles from Delhi, under a magistrate, and who had done nothing but move about and keep order, were also to share our prize, thus reducing a captain's share, which should have been more than £500, to about £150.

I afterwards asked one in authority why this act of injustice

was allowed, and he said that the Government did not care if they disgusted 2,000 Englishmen to please ten times that number of natives : it was a good stroke of policy.

The worst feature of this policy lay in the bad effect it exercised on the discipline of the soldiers. It was only by the greatest exertions on the part of the officers, by their being constantly with their men, and frequently alluding to the promise made by the general in orders the day before the assault, that their interests should be well looked after : by prohibiting straggling, and the consequent looting, that we managed to keep our men together. Thus, when it became known that their interests had been deliberately sacrificed for the benefit of the natives, the expression of their discontent found vent in many ways. One was a writing on the walls, which we found everywhere, that India had been saved for thirty-five rupees, meaning the amount of batta each man expected to receive in lieu of his prize. I am of opinion that the next time our troops have to take a town by assault, officers will find that the conduct of the Government in 1857 has not been forgotten : the men will help themselves, and their officers will not be able to prevent them.

Immediately the city was known to be evacuated by the rebels, three flying columns were formed to go in pursuit, under the respective commands of Seaton, Greathead, and Showers. The latter was to traverse the Delhi district, and punish the Rajahs and chiefs who had been so active in supporting the rebels, although well able to assist us or to remain neutral.

Our regiment again changed quarters, this time to some large houses near the church, where we remained for some time, and tried to get our men into order. Unfortunately, however, a Colonel who had commanded one of the mutinous Sepoy regiments, and who, after escaping from Delhi, had remained at Meerut all through the siege, came to us.

The General, who had commanded at the close of the siege, had been obliged to go away sick, and an old colonel, also one of the Meerut men, had taken command in his place. Our regimental commanding officer also about this time went away sick ; and this colonel, applying for a command, was posted to our regiment. He knew nothing of the officers or men and little or nothing of his duties ; it was lucky we had no active employment during his tenure of command.

Showers, having tired out one force, brought it back and applied for another, which was composed of ourselves, the Carbineers,

Coke's rifles, a battery of artillery, and the Guide Cavalry, with some of Hodson's new regiment of horse, himself in command of both.

Showers protested against the appointment of our new Colonel, but to no purpose; and all the time we were out under his command, he quietly ignored him, giving his orders to the next senior officer.

Our first point was a town called Riwarry, where we expected resistance, but the Rajah having lost heart, had bolted, and taken the greater part of the inhabitants of the town with him. Here we found all appliances for making artillery, and several handsome brass guns quite finished. A civilian who went with our force, and who was well acquainted with all the native officials in the district, having served as magistrate of Delhi before the Mutiny, here caught a number of insurgents, but as he wished to take their punishment into his own hands, our commanding officer interfered, being very jealous of his position, and chafing not a little at having anyone in his camp over whom he had no authority. Rightly or not, he declined to allow these fellows to be executed, and they were set at liberty. The civilian being a sharp fellow, and understanding the General, at once altered his tactics, and whenever he caught a lot of the rebels, of whom there swarms in every village, took them at once to head-quarters, and proving them to be rebels, asked that the military might deal with them. The General at once did what was wanted, and generally ordered their execution.

This became very nasty work for us on whom the carrying out of the orders devolved. Our men had become quite used to it; anyhow, they had plenty of it, as many of our late irregular cavalry were caught during our promenade, that service having been largely recruited from this district.

In the villages and houses were found the horses and accoutrements of these troops, and we had little difficulty in recognizing the men themselves who had, in their simplicity, thought that by taking to their home clothing they would escape detection.

At all the towns we came across guards were at once placed to prevent pillage, and the inhabitants finding we did no harm to peaceful folks, soon came back to their homes, bringing in supplies of all sorts. At our first halting place three of our officers entered one of the largest native houses and proceeded to examine it, but found little inside. It was, however, very interesting to view the interior economy of a wealthy native's home, which, according to

our ideas, is wretchedly uncomfortable, consisting of a courtyard, with a small tank in the centre, and perhaps a lilac and one or two orange or lime trees. Round this enclosure are an infinite number of small rooms with verandahs, perhaps one large room dug down several feet underneath; all these dimly lighted by holes in the walls, most of them serving for drawing, bed, and cook rooms in one. The owners having left at a very short notice, we found everything in its place, in many instances the dinner or some meal on the extinguished fires.

As we were taking a good deal of property which was to be turned into prize, we naturally thought our General would appoint an agent to represent our interests. I canvassed for the appointment, and got most of the officers to give me their votes. The worthy old soldier thought my doing so without his previous sanction a breach of discipline, so reprimanded me and declined to appoint anyone, the result being that little or no addition was made by our force to the general prize. I afterwards remonstrated with him when he brought up the subject, and think he was sorry that he had prevented my being appointed.

On this expedition he almost worked our men into the hospitals, and had we not had most favourable weather I fear many would have succumbed.

When there was any town to be surprised, which was the general object of our movements, the camp was ordered to be struck, and animals loaded at 11 P.M., and we marched at midnight. It was very slow work and terribly cold. We generally arrived close to the town a couple of hours before daylight, which we were obliged to wait for to commence operations. Here all were at once fast asleep, as perhaps the majority had not been to bed at all. I having taken precautions, of which I shall write hereafter, was comparatively fresh, and wanted no sleep. At daylight the cavalry advanced, and the rebels ran away, being well cut up *en route*.

After two or three hours weary waiting, Hodson would join us, looking the picture of good humour, and telling us that his men had been "accounting" for the sepoys nicely, which, in his phraseology, meant that there had been a good deal of fighting. He himself never seemed to get into a perspiration, but his beautiful little Arab seemed as if he had been galloping, and Hodson's right gauntlet was generally moist and red. He always led his men, using a hogspear, with which he prodded the runaways, leaving them to be dispatched by his followers. Some of us used

to be allowed to go with the cavalry, and on one occasion seeing me with the beautiful rapier which I have before mentioned, he begged it of me, as he said it was better and lighter than his spear. At first I declined to part with it, but he wrote me an importunate letter, offering anything he had for it. I let him have it for a magnificent horse.

He had taken all the horses, some 120, out of the Jugger Nawab's stables, buying them at a nominal price from the General, and mounting his men on them. One of our officers bought six of them, but having no one to look after them during the long and incessant marches, he tied them head and tail, as if going to a fair, a plan which resulted in their constantly breaking loose and kicking each other to pieces. Hodson, however, had a number of men in his train hanging on to his troopers, who were professional cattle-lifters in their own hills, and who drove the beasts without difficulty.

After taking Jugger, the Nawab of which surrendered himself to the General, and was afterwards hanged at Delhi by the military commission, we moved to a large fort, which was said to be occupied in force with any number of guns; but this had been said of so many others which were afterwards found to be of little strength, and always deserted, that we were not sanguine of a brush with the rebels.

We marched, as usual, very early; but the cavalry went on over night. On arriving the next morning we found the fort, heavily armed and with plenty of ammunition, but empty, and this is what had taken place. The cavalry, under the commanding officer of the 6th Dragoon Guards, arrived before it at dusk. Hodson reconnoitred, and told the colonel that if he would put his force in ambuscade he would get the people out of the fort without firing a shot.

At daybreak he rode with a trumpeter and four men to the main gate, but finding it shut mounted the glacis and ordered the trumpeter to sound. The walls were quickly manned, when, selecting the man whom he thought looked the most authoritative, he told him that the General had sent him to demand a surrender of the fort. His coolness caused much commotion, but he was roundly abused, and a few shots having been fired at his party without effect, he slowly withdrew, watching the place, and soon saw the rebels leaving by the two gates and making for a low range of hills about five miles off across an open plain. Sending back a note to the colonel, he was soon joined by the whole cavalry, who, after a

little pause to enable the enemy to get well into the open, were let go. They cut and hacked till their arms were tired, and going to shoot quail some three days afterwards across this plain, I saw the result in scores of dead bodies lying about.

We found the fort armed with heavy guns, taken from our arsenal at Delhi, with any quantity of shot and ammunition. In the Nawab's palace was the plunder of the English shops. I secured a quantity of small shot, which had been taken out of the bags and put into skins. Could I have carried it away, I might have had sufficient to last for the remainder of my sporting life. We also found some thousands of Government treasure in the tumbrils in which it had been taken from the Treasury.

Our next move was to Ballapghur, the rajah of which place came out in great state to meet us. It appeared that he had written to the officer in temporary command of our regiment, who had been stationed at Delhi, where his regiment mutinied. The rajah reminded him of the hospitality he had received, and, after assuring him that he was loyal to the back-bone, asked his interest with the General. This he used with the reverse of success, as the General expressed himself rather freely on the subject of aiding and abetting rebels, and the colonel's friend was sent into Delhi and there hanged after trial before the commission. We found quite enough evidence to convict him, if more was required than having presented nuzzars in person to the Mogul; in the gardens round his palace were found arms and accoutrements of every regiment that had been fighting against us during the siege, all neatly put together, the arms cleansed and in racks ready for future service. While halting at this place our authorities received intimation that large bodies of the rebels had bolted, and were hiding in the low range of hills some distance off, but ready to return when we left. Our General was not the man to leave them behind without making an effort to catch them, so one day we made a long march which brought us to the hills. He extended his whole force, infantry at ten paces, cavalry at a greater distance, the artillery with orders to take up any commanding positions. The orders were to advance thus in line, and shoot every man seen with arms in his hands. We were also to fire the stacks and drive off all cattle. A few were shot, but many more taken prisoners, and it was on this occasion that we collected the numerous head of cattle which Hodson bought. The prisoners were executed next day. These executions were of almost daily occurrence, and were always carried out by our men. We knew nothing of their trial, nor did I ever

hear that they were tried, but as our civilians with the camp knew all about the people in these parts, I suppose they had sufficient evidence against the poor fellows to satisfy our General. They were always made over by native guards to our quarter guard, with a note to the officer on duty from the staff officers directing their execution "by order."

I was generally the captain of the day, and the subalterns used to come to me for orders.

I remember on one occasion, having directed an officer to do his duty, I went to the guard to see how things were going on. There were about twenty-four men to suffer, and as I came up a volley was fired at a row of them standing with their backs towards the firing party. All fell in a heap but one, and he sprang in the air and then fell backwards. On the next party being put up, it was found that, with the exception of this one man, all the others were untouched, but had fallen and lay perfectly still. The officer had ordered his men to fire at their heads, which was too small a mark to hit with certainty with our old muskets even at ten paces, and the men were, I suppose, nervous; so we put them up again, ordering the men to aim at the centre of their backs. They fell.

On another occasion we had directions to hang some men, owing, I believe, to a fear of our ammunition running short. There was no rope to be had for the purpose, so the men undid the ropes of their tents, and fastened them to branches of trees, being afraid that if they gave the culprits a "drop," the ropes would not be strong enough. One man hoisted while another on the branch put the rope round the man's neck, and he was then allowed to swing off. The bodies were, after a short time, lifted out of the noose (to make way for the next, as there were not many ropes) and laid in a row, directions being given to bury them.

While at dinner we heard a shot fired, but as this was a common occurrence no one remarked it. Presently another, then a third, when the orderly officer went off to see what it was. It proved to be the act of one of our sergeants, who was said to have been the first man up the breach at Delhi. He was deliberately firing into the heads of the lately hanged men. On being arrested, and asked why he was wasting his ammunition, he declared that the men were only half-hanged; that he had watched and seen some of them move, and knowing that if left they would be buried alive, he had mercifully finished them off.

I think we had all become rather callous to the sufferings of the rebels.

A very wealthy native was caught and brought into camp. It was known that he had largely assisted the king with money and provisions, so his doom was sealed ; but it was also known that he had concealed a number of rebels, and declined to tell where they were. Torture would not have done ; but a rope was put round his neck with a fixed knot, so as not to strangle him. The other end was tied to the saddle of one of Hodson's wild horsemen, who was directed to take him to the Guard. This he did at a gallop. The man, who was very stout, caught the rope and followed with tremendous strides, but losing his feet, turned over, and was dragged some distance. He was half-hanged, and so frightened that he told the hiding-place of his friends, who were captured the next day.

The country all round us must have been swarming with rebels trying to get off ; yet I used to go out shooting, either alone or with a friend, whenever I had a chance, and was never molested. I have often thought over this, and how rash it was, and can only account for my escaping by the fear they had of my having taken precautions against capture, or that I was only out to try and get them into some trap.

Our General marched us backwards and forwards, over and over the same ground, until our men and horses had had enough, when we were ordered back to Delhi, from whence he started with his third force. He was the most indefatigable man, and the bravest soldier I ever saw, and seemed to get more cool and collected the hotter the fire was ; and it is my proudest boast that I served under him, and gained his approbation. This I only knew years after, for he was the hardest commander to serve under, and was never known to give any praise at the time of action ; but he never forgot a man, if satisfied with what he did. He was always the foremost in the fight, and actually saw what he ordered his subalterns to do ; while other commanders were generally content to give their orders and trust to their being executed. When he died, and his death was caused, or rather hastened, by his exertions in the performance of his duties, the nation lost one of its best soldiers.

We now returned to Delhi, the regiment taking up its quarters in the Dewan Khass and other buildings in the Grand Square. Our commanding officer rejoined, and we got rid of the temporary commander. I changed my place of residence several times, once occupying a fine house in the city which had belonged to an English shopkeeper, in which he and all his family had been murdered. There were many stains of blood in the rooms ; the house had been

guttled and fired, but being of stone only the doors and windows had burned. While living there we had several visitors, who came in from out stations to go over the scenes of our exploits during the siege, and they used to come home after each visit laden with pieces of shell and bullets, "mementoes of the great siege." Such a fuss was now made about it, and we were so frequently being written about as "the heroes of Delhi," that we began to think that we really had done something worth mentioning, and that we should have our prize money; but it wasn't to be!

The prize sales were taking place daily, and some very curious scenes occurred at them, some not strictly honest; but, nevertheless, the money came in fast, and one of the agents offered me £500 for my share. I was over-persuaded not to accept, as it was said to be a certainty that a captain's share would be £1,000, which it certainly would have been but for the action taken by Government. I eventually received about £170.

We used now to wander about the city, taking care to be well-armed. I generally went by myself, taking only my dogs, of which I had several, and used to tell my friends that if the dogs came home without me they had better send a party for my body. I was, however, never molested, and it was a most curious scene to walk over miles of streets without seeing a single human being, and to find all the houses empty, large and small, and filled with the owners' goods and chattels, of no value to any individual, but which the prize agent afterwards collected and sold, realising largely. We had little or no duty to do, and very few men to do it with. Officers in plenty, so that it made my own duty particularly light. I had great opportunities for field sports, of which I was always very fond, and just now the birds and animals were plentiful, having been left alone by the native huntsmen during the breeding season. One of our duties was to visit the guard over the Mogul, which we had to do several times during our tour of duty, and see him and his wife. The former was always on his bed, in a state of semi-torpor, with a woman rubbing his feet. He never took any notice of us, and of her we never saw anything but the hand which was put through the screen, a very pretty one, but it might have belonged to any one of her attendants.

I was again put on duty as permanent member of the Military Commission, which assembled about once a week at our mess house. One day the officer commanding the Guides brought up one of his men; he proved that the fellow had been absent when the mutiny broke out, that his home, to which he had gone, was at or near

Delhi; that there would have been no difficulty in his joining, but that he had been seen fighting with the rebels instead. In his defence the man produced certificates, showing that he had the Indian order of merit for saving the life of an officer during the Cabul war.

One of us suggested that a lengthened imprisonment would meet the case, but the officer who brought the charge, and who remained in the room during the deliberation of the court, overhearing the proposal, declared any leniency would have so bad an effect on his men that unless we sentenced capitally he would withdraw the charge. The man was hanged.

A military commission is a strange court of justice when martial law guides its proceedings, and when, as is most likely, the members of the court do not know what that law means. I must, however, say that in all the cases we tried after the siege, we insisted on good evidence, which we ourselves sifted, the prisoners not understanding what is meant by cross-examination.

I instance a trial of seventy-four Shahzadas, or blood relatives of the Mogul. They had been captured by the civil authorities when in hiding some miles from Delhi, and were brought in to be tried. I suppose the civil courts had not been re-established yet; or perhaps, these men being soldiers, it was thought right they should take their trial before a court-martial.

The Commission met in our mess-room, and these prisoners were all brought before the court tied together by a rope which was passed round each man's right wrist. A more dirty, disreputable lot of scoundrels I never saw, of all ages, from apparently fifteen to sixty. They stood in a semi-circle round the room. I volunteered as amanuensis to the court, and asked the prosecutor for a copy of the charge. He, in an off-hand manner replied, "Oh, these are Shahzadas," as if that simple fact were quite enough to convict and hang them. Our President informed him that we must have some specific "charge;" so he took a long piece of paper, on which were the names of the prisoners in the native character, and wrote in English, "for being, when in the pay of the English Government, in arms against it," or something like this.

He handed this to me; but as soon as the court could read the characters in which the names were written I had to ask for, and write all their names in English. This took some time, as the native official who had recorded their names had very great difficulty in reading his own writing.

I then called on all the prisoners to answer to their names. One of the court who belonged to a native regiment then read the charge aloud, and I followed by asking each prisoner separately if he were guilty or not. Most of them said no, but some could not for some time be made to understand anything about it without assistance from the court. We got them all to plead not guilty. The prosecutor then made his statement, telling us that all the prisoners before the court were blood relations of the Mogul, and formed his body-guard; that they were the men who actually murdered the European and native Christians taken in the city when the mutiny first broke out, and that all through the siege they were in arms against us. They certainly at this time did not look much like soldiers, though very like butchers; but this might have been our prejudice. Certainly it was our expressed opinion.

Prosecutor then called his evidence, a writer to the Mogul's court, and a prisoner himself for some other offence. He touched each prisoner, mentioning his name, which I saw corresponded with that on my list, and told us what relation he was to the Mogul. There were all sorts, from own brothers to distant cousins by marriage. None denied this or their names. I forget how the prosecutor proved that they were in English pay, but think that it was that they received pay from the Mogul, who was our pensioner.

Two native shroffs (bankers) deposed that they were constantly at the palace both before and after the mutiny; that they recognized all the prisoners as having been in the Mogul's bodyguard. On the court asking how they recognized them, thinking that in their then state of dirt and misery their own mothers could scarcely answer for their identity, they replied that all and everyone of them had often borrowed money from them and were still deeply in their books. This the court considered the most conclusive evidence, as if received, it virtually destroyed all chance of their being repaid; and a native banker would not hesitate to forswear himself to save his purse.

This opinion does not obtain, I believe, in Exeter Hall, but people who have had to deal with the native of British India know that it is so.

The next witness was a half-caste, who had been one of the Christian prisoners, and having some friends in the palace had managed to escape the massacre. He failed personally to recognize each prisoner, but said that his fellow-prisoners were killed by the bodyguard of the Mogul, assisted by others. He described

the proceedings. They were brought out of the stable, where they had been confined, women, children and men (European and half-caste), into a large square, where there was a tank, into which they were bundled. Some armed men at once began to cut them down, and the bodyguard which surrounded the place cut at and threw back all who attempted to escape. Evidence was also produced that, on the only two occasions when the Mogul had left his palace with the intention of leading the troops against the English forces, he had been guarded by these men. But they did not get very near the enemy.

Before proceeding to "finding and sentence," we thought it necessary to ask for some "defence," if the prisoners had any to offer; and not caring to hear each one talk, and they being all—if at all—equally guilty, we divided them, telling them to go out for an hour and each body to elect a spokesman to make any defence they had to offer. On these two men being brought before us again they began to talk volubly, to the effect that they were very poor people and had done nothing wrong, but that they had no doubt their friends had committed any amount of atrocities. They begged to assure the Court (their parents) that they themselves had nothing whatever to say to such bad men, &c., &c.

They were all hanged the next morning. A triangular gallows, capable of holding six culprits, had been erected opposite the police station in the main street; and for some time after we captured the city, as far as my regiment was concerned, there were no further operations to record. Ourselves and the Rifles held the city, and the usual cold weather round of drill and sport began.

The prize sales were a source of much interest. They were held in a large native house, and were attended by crowds of the Delhi jewellers, who bought largely, but were sometimes "sold" themselves. The plunder of the city did not yield to the legitimate prize agents one-tenth of what had been expected, as at first everyone helped himself. As soon as we were in possession of the city a governor was appointed, to whom went the jewellers, who always occupied a certain quarter called "Lilla Kutlee," and where they had hidden their wealth. They offered £10,000 for a ransom of this particular site, which was given them under the signature of the Governor. We lost thousands thereby.

The Great Mogul was put on his trial before the Senior Military Commission, or rather a Commission which I think was specially appointed. I do not remember what the charges against him were, but the Judge Advocate, a rather clever man, made an

admirable summing-up, and brought out the old fellow's iniquities in grand style. During his trial he sat or reclined on a sort of bed, attended by his youngest son, Jumna Bukht, who we all thought should have been put on his trial as well. There was abundant proof that he had grossly insulted several English women, and done and said a good deal that was not very loyal ; but some very injudicious officer wrote a letter to the papers in his favour, calling him an "interesting boy," said "boy" being the father of one, if not two children. During the proceedings the old man sat in a sort of stupor, either real or feigned, and seemed to pay no attention to what was going on, being constantly supplied by his attendants with some material to chew. It was a tedious business, and we idle men used to loaf into the court to listen. At first I, for one, looked very curiously at the creature who had been the nucleus round which so much mischief had centred, and in whose name so many known and unknown horrors had been perpetrated. There was no sort of expression in the face of this little wizened old man ; but if you managed to catch his eye, he looked at you in such a manner, without apparently seeing you, that I could not stare him out of countenance. I tried to do so more than once, but was always obliged to drop my eyes, leaving him looking at me. I asked others to try it, and they all failed to make him drop his look. Was it the "divinity" which hedges a king ?

I here conclude the account of the share I took in the great Indian Mutiny. The regiment was again ordered into the district, to assist in quieting the native mind ; but I myself had left for England. In the hot weather of '59 I contracted a brain fever, and was sent off to Simla, where my medical man declared there was a screw loose in my interior ; a Board shook their heads over it and ordered me home. I travelled down to Calcutta, with three other officers and a barrister. At Benares the staff officer had posted a notice at the hotel, to the effect that the road was closed by a party of the mutineers under Coor Sing. This we did not like, and proposed waiting to see what would come of it. The man of law, however, declared that the report was only a dodge of Lord Clyde's to enable him to report having re-opened the road ; and on his declaring his intention of going on, and asking us if we were afraid to join him, we all, of course, declared for the onward move, and in due course reached the City of Palaces without any adventures.



The Galas of Insign Steel.

(From the Swedish of J. L. RUNEBERG.)



X.

THE VETERAN.

HE raised himself majestic
 Within his ingle nook ;
 Tho' age had bowed his stature,
 Still lofty was his look.
 Much changed was his demeanour
 On that eventful day ;
 A warrior's noble bearing
 Resumed its former sway.

A pauper, notwithstanding,
Was he in his old age ;
Had nought but scars remaining
From former battles' rage.
Full many a year as vagrant
Without a home he passed,
Till Alavo afforded
Repose for him at last.

As if from slumber waking,
In haste he now arose,
Began to throw off quickly
His ragged week-day clothes ;
His holiday apparel,
Untouched for many a year,
Put on, and parted neatly
His long and silver hair.

The Veteran now was ready
His journey to begin,
Attired in blue and yellow,
Well worthy to be seen.
A hat his brow encircled,
With many a brazen band ;
Tho' death was in his aspect,
A staff was in his hand.

The sun outside was shining,
For days concealed from sight ;
The seventeenth of August
Was summer-warm and bright.
O'er land and lake the breezes
With gentle breath were borne ;
Oh, whither, ancient warrior,
On such a lovely morn ?

What course on this occasion
Imagined he to steer ?
Was home become so tiresome,
The ingle-nook too spare ?
This holiday apparel
Why had the Veteran donned ?
To visit the Lord's Temple,
Was 't thither he was bound ?

No bells were heard resounding
Adown the steeple's height ;
The gate was shut to all men,
The church was empty quite.
Then why to God's house hasten ?
Why thither bend his way ?
The seventeenth of August
Was not a holy day.

But in the old man's judgment
The Lord was worshipped then,
If not within His dwelling,
Quite close to it by men.
For on the hills surrounding,
From fenland unto lake,
Strove Finland's band of warriors
For King and Country's sake.

The seventeenth of August
Was summer-warm and bright,
And seemed unto the Veteran
A holiday's delight ;
He straightway sought the hillock
Where Finland's banner waved,
To see God served that morning
By Adlercreutz he craved.

He longed to hear the clangour
Of steel on steel once more,
The well-remembered music
With which the cannon roar
Recall unto remembrance
His youthful fire and might,
See younger generations
Behave themselves in fight.

Thus men explained his conduct ;
Perchance they did not err ;
They knew not his intentions,
His deeds alone were clear ;
He bent his course unswerving
And tranquil to the spot,
Where battle round the churchyard
Appeared to rage most hot.

He sat him by the roadside,
Whence clearly he might view
The gallant troops of Finland,
The Russian army too ;
And whereso swayed the conflict
Most furiously, he stared,
And oft as if transfigured
His countenance appeared.

And bullets whistled blindly
Around his head the while,
And death's immortal harvests
The field began to pile ;
But still his post maintaining,
His calm was just as great,
And not a bullet injured
The old man where he sat.

The conflict's hurly-burly
Swayed hither, thither, long ;
The foe now fought around him,
And now a friendly throng ;
But howso swayed the conflict,
The Veteran sat unharmed,
As friend and foeman past him
With veneration swarmed.

But when, the day declining,
The sun was in the west,
No more with Finland's heroes
The foemen did contest.
Each obstacle surmounted,
The enemy in flight,
Around the ancient warrior
'Twas peaceful on the height.

And when the last battalion,
Descending from the top,
Had swept past the old soldier,
He rose gigantic up.
“ O young and gallant children
Of our dear Fatherland,
The words of an old soldier
Attention should command.

"Great thanks to you I render
For this delightful day,
For never have I witnessed
More glorious an affray.
To God all praise and honour,
Our people yet can win ;
Yet lives our fathers' spirit,
Their children still are men."

H. S.



Autumn Manœuvres and the New Infantry Drill.

By CAPTAIN S. LEITH TOMKINS.



ANY years had elapsed since anything in the way of military operations on a large scale had been attempted in this country, when the siege of Paris by the Prussians in 1870 aroused a sense of our deficiencies in all classes, and the necessity of improving the efficiency of our army was impressed more particularly on the ministry of the day. Early in the following year the celebrated Bill for the Abolition of Purchase in the Army was laid before Parliament, carried in the House of Commons, but thrown out by the House of Lords. It is a matter of history now how this object was attained by an exercise of the Royal prerogative, and the publication of a Royal Warrant abolishing Purchase for ever, introducing competitive examinations for candidates for commissions, which were to be given as prizes to the successful; and it will be generally allowed that this step has raised what was often merely an occupation for the rich and idle to the dignity of a profession, and the officers of the present generation are better instructed, more capable, and as a whole evince greater interest in their duties than their immediate predecessors. But the reverses of the French, which caused in thoughtful persons a dread of what some day might possibly be our own fate if we, too, should unhappily be caught unprepared, also inspired the gravest doubts as to the efficiency of the staff and departments of the army; and accordingly at the commencement of the session, Mr. Cardwell, the Secretary for War, stated that it was proposed by the Government to institute camps of exercise, and make arrangements for brigading together more largely than had been the case in the past the Regular troops, Militia, and Volunteers.

Camps of exercise and autumn manœuvres were among the reforms established by Frederick the Great of Prussia, and con-

tributed greatly to make the Prussian army what it has since become. His example was pretty uniformly followed by all the great Continental nations, but our rulers were too sluggish and our people too apathetic to take the lesson to heart, and beyond an occasional instance and the standing camp at Aldershot there was nothing in our system to test the working powers either of the staff, commissariat, or transport. All this was now to be changed; autumn manœuvres were to teach commanders, staff, officers, men, and departments something of what they would be expected to know and practise on taking the field, and so avoid the hurry, confusion, waste, and incompetence which had been far too much the prevalent characteristics of army administration in England time out of mind. The Government proposal was heartily welcomed, and it seemed at last as if something was really going to be done. A site was selected in Berkshire, and the commanding officer was sent over from Aldershot with two subordinates to inspect and report upon its fitness for being chosen as the place for a camp of exercise. All at once, however, these good intentions and active preparations came to an untimely end. The inspector and the quartermaster-general reported that possibly the weather might be wet, and that encampment on arable land would be objectionable, but that if the summer were dry no difficulty or inconvenience need be expected. This caused a panic at head-quarters; the Berkshire site was given up, and a council was held at the War Office, when the same two officers were ordered to inspect the neighbourhood of Aldershot, and recommend some other suitable ground. The session was now nearly over, and great disgust was felt and expressed at the apparent collapse of the zeal of the Government to initiate reforms even of the most simple and necessary character. The Duke of Somerset reproached the Government with providing "a navy that could not swim, and an army that could not march," and he was universally supported by all classes. To confess that the army could not sustain the discomfort of rain and wind at the best season of the year in a southern county was too much for the country's patience, and at the last moment Chobham was selected in place of the site in Berkshire.

The preliminary difficulties having been surmounted, the manœuvres were held, and the following is a short summary of the principal errors and most glaring blunders which would have been followed by disastrous results in an actual campaign:—

1. The inefficiency of the scratch Staff, only brought together at

the last moment, ignorant of their duties, and some members of it not even able to recognize the commanding officers.

2. The inefficiency of the Control (Commissariat) Department, which broke down utterly one day, and left the 1st Life Guards and the Blues twenty-three hours without food.
3. Defective organization of field artillery. On one occasion the field artillery proved to be useless because the men could not keep up with the guns, owing to the broken ground and deep heather.
4. Numerous tactical blunders. One Sunday morning (September 10th) at 1 A.M. a special correspondent rode round the lines and saw neither outpost, piquet, patrol, nor vidette. A regiment of Militia was caught with arms piled between the attacking and defending lines. A body of Lancers slowly crossed in front of a wood lined with infantry. On another occasion a small body of horse galloped along the front of two battalions of the opposing force. Want of self-possession in all ranks. At the sham fight on the last day the troops were all carried away by excitement, and Regulars, Militia, and Volunteers alike all absolutely disregarded the orders of the Duke of Cambridge and the umpires, and fought until they were black in the face; but as no bayonets were fixed, under special orders, no accidents happened. Neglect of taking advantage of the cover which the ground afforded.
5. Needless disregard of the men's health; instanced by letting them sleep in the open under drenching rain, and again by a forced march of thirty miles under a blazing sun.

All these points constituted most valuable lessons to be learnt from the manœuvres; some of them were taken in hand at once, others not for years after, but the chief gain in experience in these manœuvres undoubtedly lay in the improved handling of artillery. Up to that year it was a tradition that the movements of artillery should depend on those of the infantry which it was supporting, and from that time dates the greater freedom now granted to artillery, and so essential to secure the full effect of artillery fire. Seats on the axle-trees of the guns and waggons seem to have been adopted a year or so later, and it may be assumed that the experience gained from these manœuvres contributed to the change.

Next year (1872) the autumn manœuvres were conducted on a

somewhat larger scale, two sites being adopted, viz. the neighbourhood of Aldershot and Cannock Chase. There were fewer complaints of the Control Department and the Staff, but both strategical and tactical blunders were as numerous as ever, though the men marched better. Again we read of gross tactical blunders, such as troops marching in column under the easy fire of artillery, and of light cavalry charging up hill against heavy, so that an engagement on the Wiley was spoken of as a brilliant farce, and as little instructive as could well be. Notwithstanding that the Duke of Cambridge mentioned "his infinite pleasure in expressing his entire satisfaction" at the operations near Aldershot, the general plan was misunderstood, the two opposing forces each cut off the other's communications, each turned the other's flank, and each occupied the other's ground. Both here and at Cannock Chase the operations were signalized by an excess of sham, and of imaginary conditions which went far to neutralize any benefit that might otherwise have resulted from the manœuvres. The most important error in the general conduct of the operations was laying down beforehand the results which were to follow the movements initiated by the commanders of the opposing forces, so that the general outcome was a confused scramble. A general who had fairly won a position by superior strategy was supposed, in accordance with the general plan previously laid down, to lose all his advantages and be obliged to retire because his opponent was supposed to have received reinforcements on paper, upsetting all the practical lessons learnt on the ground, and creating unbounded confusion. Another instance of the folly of settling the results previously was noticed in a truce being declared which would have been quite impossible under the circumstances; and, again, when Sir John Michel won by marching through a town which was supposed in the general plan of the campaign to be strongly garrisoned. Imaginary considerations seem to have run riot at both the camps, and real features of the ground which would have afforded valuable lessons were ruled out by a stroke of the pen, as when the More Critchett Woods, which occupied a space of two miles out of five along the defender's front, were ordered to be considered an impassable morass.

From the operations this year it clearly appears that a radical change was required in drawing up the plan of the campaign, and that the system of fixed results was a dead failure, serving only to conceal strategical and tactical blunders; that the generals in

command had not sufficient liberty of action, and that they should be given more scope, only a certain direction and a fixed centre being indicated for their guidance, and that all ranks wanted more practice in tactics.

The autumn manœuvres were again continued in 1878, and in some respects they were more satisfactory than those described above. They were divided among several camps, formed at Dartmoor, Yannaton, Ringmoor, and Cannock Chase, and were especially noticeable for the improved state of the Control Departments, which gave satisfaction all round, the horses and men being good, and working hard, and all the troops well fed; no case for complaint occurred under this head, and if the manœuvres hitherto had done but little good, certainly as far as commissariat was concerned the lessons of the preceding years had been of decided benefit. This year was marked too by steady progress in minor tactics. At Dartmoor, where the ground was very rough and difficult, the men were remarkably steady on parade, and progress was made in accustoming them to move and act together in masses. At Yannaton and Ringmoor little else was attempted than battalion, brigade, and division drill, just as might have been practised at Aldershot; it had been intended that the two forces representing invaders and defenders should have had a running fight on their return march to Aldershot in the last week, but it could not be carried out on account of the weather, which was excessively wet, rain falling almost incessantly all the time. It was a singularly wet summer, transport was scarce, but, as far as ordinary commonplace work, this year's manœuvres were a decided success. Good tactical instruction was afforded to officers and men, particularly at the camp at Cannock Chase, the Departments knew better how to meet the demands made upon them, and the less ambitious programme of the season made the success of the year more noticeable by contrast with the failure of the lessons in strategy, not to say tactics, of the year before. Altogether the experience gained by the three successive years of camps of exercise was well worth the trifling outlay. Each branch of the service and each department worked better after the first trial had shown up defects, and, in some points, decided progress had been made, that is to say—

1. The artillery was more independent.
2. The Control (Commissariat) and Transport Services more effective.
3. The general Staff worked better together.

4. Officers and men learnt more of the ground they were fighting over, and profited better by tactical experience.
5. The men were better cared for, better taught, and less impatient under trying circumstances, both in a sham fight and on the march.

Autumn manœuvres during the next few years were confined to Aldershot and the immediate neighbourhood; no special call was made on the staff or commissariat, but a good deal of attention was given to tactical instruction, resulting in decided benefit to the subordinate officers and the rank and file, but hardly affording sufficient practice in strategy on a large scale to the generals in command. The year 1875 was particularly noticeable for the effects resulting from continued practice in tactics, and was signalized by a striking instance of professional zeal shown by one of the generals in command. He had worked out a march at the game of Kriegspiel on scientific principles, and when occasion arose he carried it out most successfully, and completely surprised his antagonist, who was quite unprepared. It should be added, however, that his antagonist mainly owed his defeat to the inefficiency of his cavalry and to the duties of scouting being very imperfectly performed. Not that this fault lay wholly on one side; the cavalry generally were unequal to collecting the information which they ought to have obtained, and, in addition, the outposts were very weak and decidedly ignorant of how much depended on them. As far as the general plan of campaign was concerned, the commanders attempted to cover too large a space of ground for the troops employed.

In order to correct such errors as these, orders were issued to the umpire staff laying down the rule that troops were never to be supposed to represent a larger number than their effective strength, and for their guidance it was stated that troops should not occupy more ground than the number present would admit of. They were told to reckon five men per yard of front on open ground, allowing for the disposition of a proper reserve, but that if the position were entrenched, an allowance of three men instead of five per yard might be taken. More useful work was done this year than had been the case previously. The men were not permitted to fire at absurdly close ranges, though it must be observed that occasionally the rule was broken, and on one occasion the opposing lines blazed away at each other at ten or twelve yards' distance. Still fair progress was made, the artillery was well handled, attempts were made to estimate the effect of their fire on rapidly moving troops,

and a good deal of outpost duty was done. Entrenchments and the proper disposition of troops therein was a point especially considered. Rules were issued enjoining the commanders where possible to make their first line occupy a ridge or line of hills, and so to dispose their second line as to allow wide intervals between the posts and thus permit the first line to retire without masking the fire of the second line ; and the position was to be cleared in front as much as possible. They were recommended to have shelter trenches dug at a distance of 800 or 400 yards behind the first line, and specially told to utilize any woods or houses for purposes of defence, and further recommended to practise the men retiring from the first line in rallying behind the second. Instructions were also issued as to the position of artillery, the proper place for which was stated to be on high ground at re-entering angles in the fighting line about 500 yards to the rear. If the ground were wet parapets were to be raised, if dry epaulments were to be sunk. A larger body of artillery was detailed for these manœuvres than usual, especially with a view to massing the guns, but range-finders were sadly few, and a good deal of their fire must have been wasted under similar conditions on service.

Reserve ammunition columns were now organized for the first time, and the troops were made to draw fresh ammunition from the divisional reserves, but, probably from want of experience, comparatively little use was made of them. It is a point which ought to be more studied and practised than it is ; the due supply of fresh ammunition is of the utmost importance in these days of breech-loaders, and the need will be still greater when magazine rifles are supplied to all our troops. Every regiment ought to have its reserve ammunition column, and instead of giving the men their full supply of cartridges on the morning of a sham fight, it would be far more useful to start them with less, and compel them to fill up their pouches at least once during the day, to accustom them to meet an emergency on the field of battle.

A new system of attack was practised. Each battalion was formed into three lines, attacking, supporting, and in reserve. The first line consisted of two companies in rank entire, with one pace between each man ; the second was made up of two companies, also from 200 to 300 yards in rear of the first ; and the remainder of the battalion formed the third line, the same distance in rear of the supports. Three zones of fire were considered, 3,000 yards for artillery, 1,100 yards for the extreme range of infantry fire, and 600 yards for their effective range. At 1,100 yards from the

enemy the first line advanced in short rushes by alternate bodies while the second line gradually closed up, filling up the gaps in the first line when ordered. At 600 yards' distance the second line and the first formed into one, and when within 300 yards of the enemy, the whole line advanced continuously. When within the effective range, the third line reduced their distance from the second, and when necessary further reinforced the attacking line. The two majors each commanded the double companies, and the commander the main body in reserve. In this system of advance there were no skirmishing parties, and its final development was a rush between two lines. The experiment was well carried out, but as the opposing force was not sufficiently strong it was impossible to arrive at a decision on its merits.

The Duke of Cambridge issued his remarks on these manœuvres in December, and laid special stress on the necessity for improvement in cavalry reconnoitring, saying that they should be instructed to cover as large an extent of country with as small a force as possible, and that responsibility should be passed down to the junior grades. He added that he noticed the tactical handling of cavalry to be rather too cautious, and that a sudden dash upon broken or unprepared troops was often most decisive. As to other results, the signalling required improvement; reserves were not kept sufficiently strong, but were improperly reduced to reinforce the fighting line; and the troops were not sufficiently concentrated in a central position previous to making a real attack. Lastly, lines of communication were not kept up as they should have been. The Engineers did well. Altogether the manœuvres of 1875 constituted a marked advance, and contributed in many points to improvements introduced subsequently. It should be mentioned that Prince Louis Napoleon was present, attached to Major Ward's battery of artillery, and gave instructions to his men in cookery after the French fashion. Under this head it is to be feared that there is room for a good deal of improvement, and as an army marches on its belly, more practice in shifting for themselves, and making the most of inferior or deficient supplies, would be invaluable.

In the year following the 2nd and 5th Army Corps were ordered to be mobilized, but no manœuvres of importance were attempted, and of recent years minor tactics at Aldershot seem to have occupied the attention of the authorities more than anything else. This part of a soldier's duty is certainly far better taught and practised than it used to be, but year after year we hear of the

same mistakes. Scouting negligently performed ; advanced guards and flanking parties neglected on occasions ; and cavalry blundering through commanders being unacquainted with the ground, and having no maps. Surely a proper supply of maps to all arms of the service is a matter of the first necessity, and the second is ample opportunity for practice in their use. If maps are not forthcoming for the home district, can it be supposed that the Intelligence Department has maps of foreign countries, where possibly our troops may be called on service, ready for reproduction in considerable numbers, and a plan for photographing and lithographing them at a moment's notice ? The work ought to be begun at home, and maps should be as much the equipment of an officer as the Field Exercise Book.

We do not seem to profit by the experience of other nations. Both in Germany and Austria attempts are frequently made to assimilate the conditions of peaceful manœuvres as closely as possible to the conditions of real warfare, but, notwithstanding the immense benefits to be derived by all ranks from doing so, we jog along in the old grooves, and leave nearly everything to the chapter of accidents and what experience can be picked up in our numerous petty campaigns, which, after all, afford instruction but to a small portion of our forces. On no single occasion have even divisions or brigades, setting Army Corps out of the question, been pitted independently against each other, started from two points a few days' march apart, and told to find each other, acting solely on the information they can themselves obtain. It ought not to be difficult to find some stretch of moorland or downs which would afford plenty of room for the movements of, at all events, small bodies of troops, which should be left as much as possible to themselves, furnished with transport and commissariat, and made less dependent on preconcerted plans and supplies of food from large towns. It would not cost much to make use of railways to bring up troops where they were wanted, and be a valuable experience all round. More reality should be aimed at. Why cannot an experiment be made one year to mass the Regulars, Militia, and Volunteers at a given point, in, say, the northern district, and let the commissariat set to work to feed them for a week or two from local supplies at short notice, and another year take the southern or eastern district, and so on ? Minor tactics are all very well, but they are not everything, and practice in mobilization on a small scale would be of inestimable value in preparing for mobilization on a large scale. Only by constant practice and

inquiry can our deficiencies be found out. Consider how many were discovered in the few years when we attempted to learn something from autumn manœuvres besides tactics, and if we are to keep our position among the nations of Europe we must not fall behind. Some good was done in the years we have mentioned, some good it must be allowed is being done now, but not enough, not half what we might do by looking our shortcomings fairly in the face, and steadily setting ourselves to amend them, even at some sacrifice of money and convenience.

It will be interesting to consider the alterations in the Drill Book in the light of the experience gained by the experiments made in the disposition of troops, and the mode of handling them, since autumn manœuvres were instituted, and since breech-loaders have been adopted; and, again, more particularly the changes introduced in infantry drill, bearing in mind the fact that the improved handling of field artillery is greatly due to the deficiencies in that branch having been emphasized at the first camp at Chobham, and at similar camps afterwards, and to their gradual correction. The alterations consequent upon the introduction of breech-loaders are not within the scope of the present article, but the following are worthy of attention.

The first noticeable change that appeared in the Field Exercise Book was the introduction of a chapter on field manœuvres and tactics, evidently brought in because the need for it had been shown during the manœuvres above described. It must rather have startled old-fashioned admirers of the Prussian strictness of drill, which even insisted, as the writer has seen, on the bayonets being dressed on parade, to be told that they "should make a marked difference between parades for drill and those for field manœuvre," and that "tactics should be studied rather than drill, accidents of the ground rather than precision." (Field Exercise Book, 1877.) The general principles of the attack and the defence of a position were also introduced, together with detailed instructions for infantry outposts, which took the place of elementary rules for inlying and outlying piquets in the Field Exercise Book previous to the era of manœuvres. At the earlier date no orders were made as to the proper place of outposts being a day's march, or at least four or five miles ahead of the main body, and no provision for reserves as well as for piquets and supports appeared. Army signalling in its special application to outpost duties was also added for the first time, and shelter trench and pit exercise, with rules for passing over pontoon bridges, and, in addition, regulations for the

transport of troops by railway; all more or less, except the last, attributable to the experience acquired, and the deficiencies recognized at autumn manœuvres. Besides the points of difference just mentioned, it was further laid down that in all interior movements of a brigade, battalions were to move to their places by the shortest possible lines, cutting off angles when possible by the diagonal march.

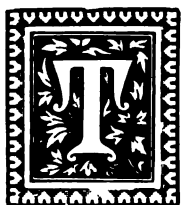
The new Infantry Drill Book just issued develops in a very marked degree the improvements tentatively introduced some twelve years since. Parade drill has been enormously shortened and simplified; counter-marching, which was so much practised and which caused a grievous loss of time, disappears altogether, and is replaced by changing ranks; wheeling is also dispensed with, and the quicker movement of forming to the front by the diagonal march is adopted in its place on all occasions; while the part allotted to field manœuvres and tactics is amplified from 59 pages in the last edition of 1884, inclusive of advanced and rear-guards and outposts, to 246 pages. Serving out ammunition from regimental reserves is ordered to be carefully and frequently practised; umpire regulations are added; and formations for attack and defence, with reference both to the main body and advanced posts, are described in ample detail. A chapter is devoted to artillery fire, and infantry versus artillery; and, lastly, systematic military training by companies for all officers and men is rigidly enjoined, and a syllabus given of such training for four weeks, comprising the tactical employment of a company in action, movements in battle formation, fire discipline and escorts, the distinction between skirmishing and the attack formation, with field calls and signals for the first week. Intrenchments, elementary field engineering, advanced and rear-guards for the second week. Reconnoitring, outposts, and night operations for the third. Camping, packing, pitching and striking tents, the formation of cooking, water and other parties, bivouacs and their protection, knotting, lashing and the use of spars for the last week. The use of field glasses, maps, the magnetic compass and sketching is also specially recommended.

The circular issued by the Commander-in-Chief, with which the new Drill Book commences, lays great stress on the altered conditions of modern warfare being properly realised, and states that His Royal Highness looks to the careful training of a soldier in ordinary times for the efficient preparation of infantry for the practical requirements of the battle-field. It must be allowed that autumn man-

œuvres have borne good fruit in military training as now authoritatively required, and full credit must be given to the Head-quarters Staff and the War Office for rising to the occasion, and frankly and fully adopting the conclusions arrived at in the latest developments of modern warfare. But, as has been urged above, tactics and field exercises are by no means the only things to be considered; they must be supplemented by the hearty co-operation of the Government, to whom we must look for the money required in practically testing the efficiency of the Staff and Departments. Transports and Commissariat cannot be efficiently organized on paper, and opportunities ought to be provided, at least once every year, to test their capabilities in other parts of the kingdom besides Aldershot. The country is now fairly aroused to the necessity of setting our plans of defence in order; the trifling sum wanted for annually testing departmental shortcomings will be cheerfully voted, only the Government must be urged to ask for it.

Mr. Stanhope has stated in the House of Commons that in the event of war, he was prepared with a scheme for calling out the Reserves, Militia, and Volunteers, allotting their stations, and furnishing them with arms and clothing; also that the names had been selected for a general Staff, who could be called together at any time. Brave words, no doubt; but words that must be proved. Some member of Parliament ought to ask what he proposes to do to show that his scheme can be relied on in the hour of need; that horses, arms, ammunition, and clothing are really at the depôts indicated; and that the inefficiency of a scratch Staff such as that which proved to be so incompetent years ago at Chobham will be removed by calling upon them to assemble, and accustoming them to act together at peaceful manœuvres, and thus ensure the smooth working of all parts of the military machine in time of war. The military authorities have done their part, and we must look to the House of Commons to loosen the purse-strings, and insist on the preparations, at present only indicated on paper, becoming actual facts, if we are not again to be found wanting in the day of trial.

The Royal Naval School.



THE solicitude of our Royal Family for the efficiency and welfare of the services is too well known to justify lengthy comments. But the particular forms under which this solicitude manifests itself from time to time are well worthy of a closer attention.

Every movement, whether purely professional, social, or philanthropic, may count in advance upon the sympathy and active support of the reigning family, and many a well-conceived and laudable project receives the much-needed and timely impetus from this source. As an instance, we may mention the opening of a new site and buildings of the Royal Naval School at West Chislehurst Park, Eltham, by our young Sailor Prince, George of Wales, on the 17th of July last, in the presence of a large and distinguished company of visitors. We regard this gathering—so pregnant of interest to all members of the services—as a favourable opportunity for offering a few remarks on the educational question in general, and the aims and objects of the Royal Naval School in particular.

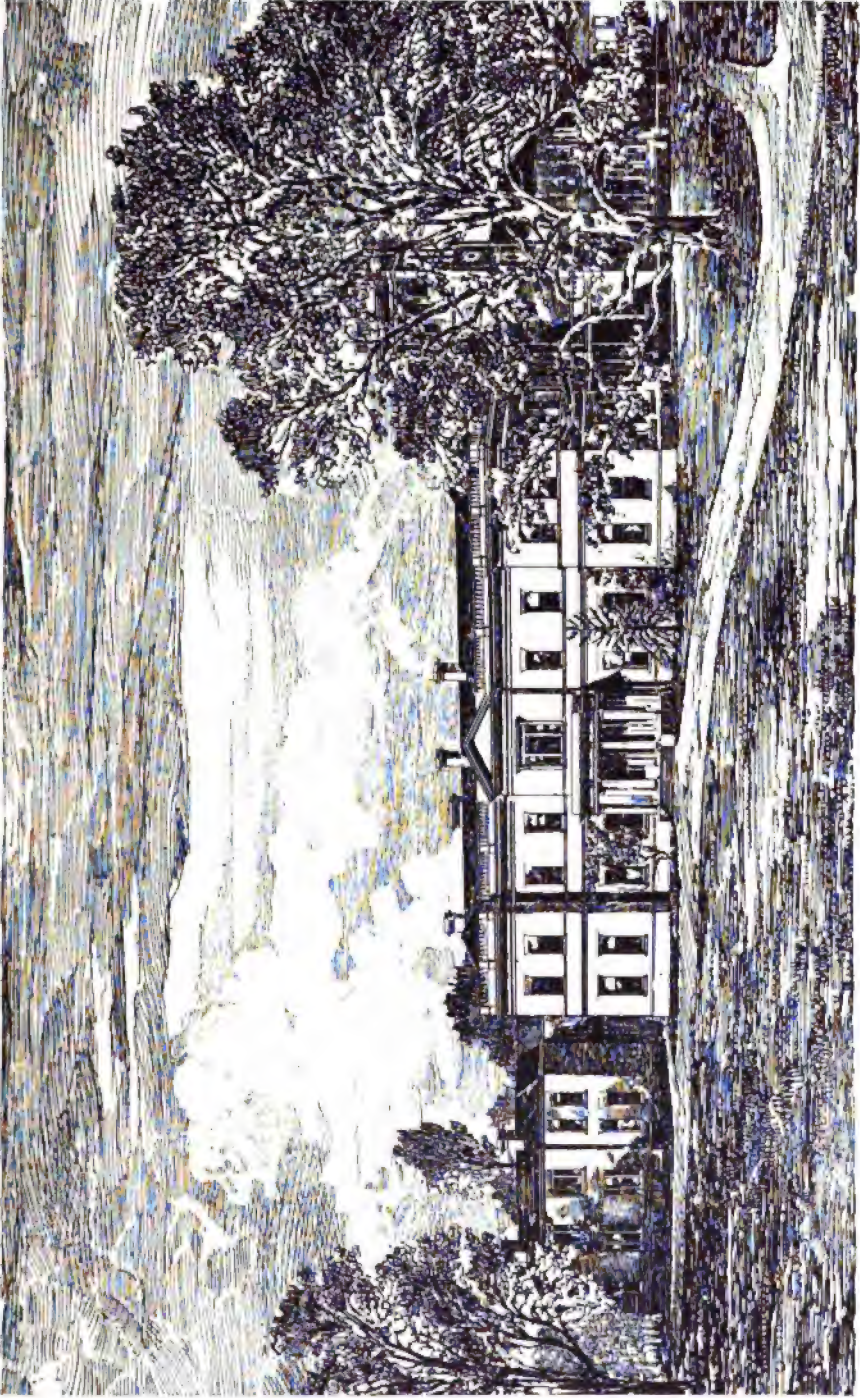
The problem which pater-familias now-a-days finds most difficult of solution is this:—"How to provide a mental and physical training for their offspring that shall best equip them for the battle of life at a cost commensurate with their means." Rightly or wrongly, examinations, competitive or qualifying, now constitute the key to all public appointments, to all professions, and to many commercial and industrial callings. *La carrière ouverte aux talents* is written over the entrance to all professions. With the merits of this system we will not concern ourselves here, but simply deal with accomplished facts. Since its general adoption the standard of intellectual requirements has risen steadily year by year; the multiplicity of subjects included in a modern examination is contemplated with awe and bewilderment by the survivors of the ante-examination period, who to a man maintain the

superiority of the old system. But this ever increasing demand for intellectual wares has not been accompanied by a corresponding increase in the supply; the economic laws of supply and demand have in this instance been violated. At all events, the supply—such as it has been—has for the most part not emanated from those sources where the public had a right to look for it, namely, our universities and public schools. At first these latter refused altogether to shape their curriculum with a view to meeting new requirements. Gradually, and steadily, public opinion has wrought reluctant and half-hearted concessions. But even at this hour most candidates for public appointments are prepared by private tutors; some of these enjoy a practical monopoly, and regulate their remuneration accordingly. No sensible man will quarrel with them for this, however much he may smart under the infliction.

The greatest sufferers from this system of *laissez-faire* in education are officers and civil service servants residing in India, already the victims of a cruel economic crisis, for which economists vainly seek a remedy, namely, the depreciated value of the rupee. Next to these comes the naval officer, whose pay is slender, and liable to a similar depreciation and fluctuation.

Many schools and colleges have been called into existence of late years, by means of public companies, for the avowed purpose of preparing candidates for competitive and other examinations at a low cost. The great majority of these institutions have been short-lived. Some still struggle for existence, whilst others, like Cheltenham College and Westward Ho! enjoy a fair measure of success. Schools of this description, without endowments, can only hope to hold their own by producing continuous and fair results; they live under a constant blaze of examinations, and failure at these means death to them, however valiantly they may struggle against it for a time. Such results, under such circumstances, can only be secured by a pedagogue free from educational prejudices and fads, abreast with modern requirements, a leader of men and boys. These indispensable qualifications are but seldom found combined in one man, and those who possess them are generally absorbed by older and prosperous institutions.

With that practical sagacity which has ever distinguished the naval officer, he read the signs of the time aright, he foresaw the solid advantages that must result to his branch of the service from the establishment of a school, abreast with the educational requirements of the age and able to supply an intellectual training



THE ROYAL NAVAL SCHOOL, ELTHAM.

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at a cost within the reach of the poorest members of the profession, or supply it in certain cases altogether free of charge. The idea of such a school was originated by Captain W. H. Dickson, R.N., in 1831. Two years later, practical effect was given to the scheme by the opening of Alfred House in Camberwell. Such was the progress and prosperity of the school that ten years later, *i.e.* in 1848, the foundation stone was laid to the present pile of lofty buildings at New Cross by the late Prince Consort. Here, for about half a century, the school has done useful educational work. The total number of boys admitted to it during this lengthy period is 3,180. Of these, 448 entered the naval service; many of them have risen to the highest distinction, and all cling, with an admirable *esprit de corps*, very affectionately to their *alma mater*; 226 entered the army, and 136 the Royal Marines. We are assured that there is not a liberal profession or calling in which this school does not count some old boys as distinguished members.

At the time of the introduction of competitive examinations the Royal Naval School was neither more nor less prepared than the rest of our public schools to meet the new intellectual requirements. A great number of the boys were on the foundation, *i.e.* educated free of charge. The fees paid by another class of boys did not cover the expenses of maintenance and education, and, having but moderate endowments to fall back upon, the school had in a great measure to rely for its efficiency and maintenance upon the bounty of benevolent patrons and members. It speaks volumes for the skill and devotion of those who guided its destinies that under circumstances so precarious it rendered such excellent services.

With the advent of the present head master, the Rev. James White, M.A. Oxon., some eight years ago, the school underwent many and important changes, without losing sight of the original aims of the founders. This eminent pedagogue had for some years been mathematical instructor at Woolwich, and for three years head master of the Oxford military College, which under his *régime* attained a higher state of prosperity than it has been able to maintain since. Mr. White's previous experience thoroughly qualified him for the difficult task of raising the school to a level abreast with modern requirements, and in accordance with the aims and aspirations of the Council, by whom his efforts were ably and energetically seconded. The school fees were raised sufficiently to cover in most cases the actual outlay, and yet kept within the reach of the poorer members of the profession. The teaching staff was reorganized and reinforced by graduates in honours of Oxford

and Cambridge, and the curriculum made sufficiently comprehensive to meet most modern requirements. It embraces at present: Divinity, Latin, Greek, English, German, French, Ancient and Modern History and Geography, Arithmetic, Mathematics, Natural Philosophy, Practical Chemistry, Writing, Book-keeping, Mapping, Lectures on Scientific and General Subjects, Drawing (Geometrical, Military, Freehand, Figure, Water-Colour, &c.), Hindustani, Italian, Music, Drilling, and Swimming. The addition of a Riding School is, we believe, contemplated.

In judging the educational results obtained by this school under its present régime, it is but fair to bear in mind the exceptional difficulties and scanty means by which these were achieved. Yet we think the school need not fear comparison with the records of schools of far greater pretensions, charging double and treble the fees. But let facts speak for themselves. Of 14 candidates sent up during the last few years for the Woolwich examinations, 12 were successful, 9 at their first trial all taking fairly high places, most of them passing out of Woolwich with honours, and several obtaining the R.E.; 3 passed into Sandhurst, 16 into the navy, during the same period. The school also won solid distinction at the Universities of Oxford and Cambridge; four important open scholarships were carried by its pupils within the same period.

We were shown an interesting group of photographs of boys, 9 in all, and asked the head master casually:—"Now, what has become of all these lads?" He replied, obligingly—"No. 1 passed into Sandhurst, first trial, and passed out fifth; No. 2 passed into the Indian Police, first trial; No. 3 matriculated at Oxford; No. 4 passed into Woolwich, first trial, and obtained the R.E.; No. 5 gained an open scholarship at Christ Church, Oxford; No. 6 passed into Woolwich, first trial; No. 7 gained an open scholarship worth £100 a year, tenable for eight years, at Cambridge; No. 8 passed into Woolwich, first trial, and obtained fifth place." Here the head master ended his explanation. "And No. 9?" we asked. "Oh, he, poor fellow, failed at his first trial, was sent to a private tutor by his parents, and never passed," replied the worthy pedagogue, somewhat mournfully.

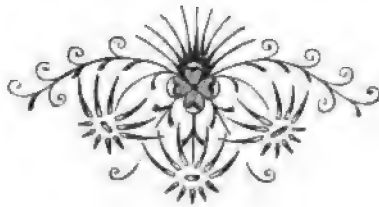
Nor is the physical training neglected. Drilling, swimming, football, cricket, and all school games are sedulously cultivated. A swimming-bath and gymnasium form part of the buildings, whilst the grounds afford ample scope for exercises of every description.

But this Institution provides something more than mental and physical training for those entrusted to its care, something more

valuable and higher than book-learning and the power to cope with physical difficulties—namely, a sound religious and moral training, a training that shall enable them in after life to persevere in the paths of rectitude and honour under temptations, and to cope manfully with the difficulties, moral and physical, they may encounter in their walk of life. Heartily do we respond to the hopes expressed by our amiable young Sailor Prince, and by the head master, that the old school, in its new, beautiful, and commodious home, may enter upon a career of increased usefulness, and may continue to send forth into the world men of culture and sterling worth.

Parents of moderate means, whether members of the services or civilians, have here solved for them the difficulty of providing for their sons an efficient mental, moral, and physical training at cost price. It is much to be regretted that other branches of the services have not already imitated the excellent example of the navy. Surely the flood-gates of benevolent members of the services could wish for no better and more judicious outlet.

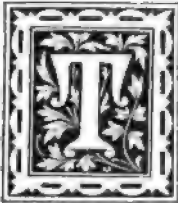
The old site of the school had been over-built from all sides, and become somewhat confined. It was, therefore, decided to take advantage of the opportunity that offered itself for disposing of it, and to acquire the present truly beautiful site and buildings. The former comprises nearly twenty acres of well-timbered land. The buildings are lofty and well adapted for the intended purpose; they have been enlarged and provided with all modern sanitary improvements. A chemical laboratory, a lecture-room, a covered gymnasium, and swimming-bath have been added, and the school is now capable of accommodating 150 boarders besides day boys.



Some Notes on Military Topography.

By CAPTAIN WILLOUGHBY VERNER.

PART I.—PLANE TABLE *versus* PRISMATIC COMPASS AND ITS ADJUNCTS.



THE magnetic compass, the inseparable guide and companion of the sailor by sea and the explorer by land, has, save in the scientific branches of the Service, where it is used in conjunction with the theodolite, spirit-level and plane table, received but too little attention from the great mass of the army.

It is not difficult to account for the reason of this. The introduction of the prismatic compass, with its adoption as *the* instrument to be placed in the hands of our cadets both at Woolwich and Sandhurst, and also as the one to be alone used for all sketches executed in the examinations for promotion of officers, could not but fail in time to cause the vast majority of men to become imbued with the idea that it was the best available instrument for military sketching. So firmly has this belief prevailed in the Service, that the various people who have made prismatic compasses their study have by degrees evolved an instrument which, save by the most awkward manipulation (in some instances necessitating even the removal of the metal top and glass), cannot be used as an ordinary magnetic compass at all.

Taking, for example, one of the "best pattern" prismatic compasses that now lies before me. Here we have the compass card absolutely bereft of the cardinal points, whilst, to make matters worse, the graduations for degrees have been "counter-marched," so that on the card, north is marked 180° and south 360° . Of course every tyro knows that this is simply done for convenience of reading through the prism, but the fact remains that this parti-

cular pattern of compass cannot be used as a magnetic compass for ordinary purposes. By way of clinching the whole matter, the glass cover is replaced by a metal one, out of which a small sector is cut, so as to render the portion of the compass card just below the prism alone visible.

Could human ingenuity have devised a magnetic compass—for such, of course, it is, although of strange design—which, whilst it retained the invaluable property of pointing to the north, was yet so constituted as to be practically useless for any purpose except that of taking a magnetic bearing?

In case any of my readers should imagine that I am somewhat rash in thus condemning an instrument which has the reputation, at any rate, of having been a good public servant for so many years, I must explain that I do so deliberately, and after having most seriously considered the whole matter, with the result that I have come to the conclusion that *the prismatic compass is not the instrument which an officer should be expected to provide himself with for use on active service.*

I became possessed with this idea very soon after I first learnt how to use this instrument, but, in order to be sure that I was not on the wrong line, I have for some years never lost an opportunity of taking the opinion of good military draughtsmen on the subject. It may surprise some to learn that the great majority of those I consulted were agreed as to the inutility and inconvenience of the prismatic compass when used under Service conditions.

Just about ten years ago, a committee was assembled to consider the whole question of instruction in military sketching and surveying, and the opinions of various experts were taken. The results of the inquiries then made were published in a voluminous report in the following year, and the upshot was a general revision of our system of military topography. One of the most important alterations was the reintroduction of the plane table into the Service. This was inevitable, on account of the overwhelming consensus of opinion of the experts in its favour.

Some of the opinions expressed as to the value of the plane table, with the reasons for them, are worthy of attention.

First we have Colonel Holdich, R.E., of the Indian Survey, who says that in the field he “regards the plane table as infinitely superior to the prismatic compass.”

Colonel Godwin Austen, of the same department in India, gives his opinion that “the plane table is the best instrument for surveying, and is far superior to the prismatic compass.”

Colonel Leech, R.E., V.C., states that he used both the plane table and the prismatic compass during the Looshai Expedition and Afghan War, when he found the plane table decidedly the most practically useful in the field as he obtained by its use greater rapidity, greater accuracy, and certainly greater facility for sketching purposes in every way. He did not find it inconvenient to carry about with him on reconnaissance duty, even when with cavalry. When mounted, he carried the table in a leather case at his side, and the stand in his right hand. During the campaign he tried the plane table against the prismatic compass in the hands of an expert surveyor, with complete success on his part with the plane table.

Colonel Ardagh, R.E., expresses his belief that "the plane table is decidedly more accurate than the prismatic compass; my sole objection is that it is quite certain that every officer will not carry a plane table, whereas they may easily carry a prismatic compass" (But do they? Query).

Lastly, Colonel Richards describes it as "the simplest of all instruments, and one that explains itself; in using it a man learns the principles of surveying, and he can afterwards apply any instrument to carry out these principles."

The deliberate opinion of the Committee on Military Surveying with reference to the question of the plane table, may be epitomized as follows:—

"They cannot avoid recommending its reintroduction in the strongest manner possible. . . The opinion of every officer who is serving or who has served in India, of whatever rank he may be, or to whatever arm of the service he may belong, is in favour of the plane table. . . It is used by every European army." . . . &c.

Whilst with regard to the prismatic compass we find—

"The evidence of those officers who were employed in the South African campaign goes to prove that the prismatic compass was very unreliable and, in some cases, almost useless, owing to the powerful local attraction in the ground, and that plane tables would have been invaluable; but there were none available, nor was there any person skilled in their use."

The Committee further state that, although certain officers of undoubted experience have stated they were adverse to its introduction, "their objections were based almost entirely on its alleged want of portability as compared with the prismatic compass."

Lastly, they enunciate their opinion in what I must venture to characterize as a somewhat half-hearted manner, and to which I

attribute the delay there has been in carrying out the introduction of the plane table on a proper scale, as follows:—

“The Committee do not for a moment wish to supersede the prismatic compass by the plane table, but they most earnestly urge that the latter should be taught.” But although the plane table was thus once more sanctioned on paper as a Service instrument, it has practically made but little way in the Service.

Some six years after it was approved, a few were issued to the Royal Military College for the use of some 300 cadets, whilst at each of the centres of Garrison Instruction *one* instrument was provided.

Such a tentative measure can in no way be deemed to be sufficient, in any sense of the word. There are many men in the Service who have never seen one, and certainly scores upon scores who have never used one. Its first production before the officers attending a course of instruction has been known to elicit the liveliest curiosity, and on one occasion the novel sight of the tripod caused a man of inquiring mind to ask whether *photography* was now required as a test for promotion.

It may be mentioned that plane tables are used at the Staff College to some extent, and I am informed that in India they have obtained the recognition they deserve.

The main grounds upon which I advocate the more general use of the plane table are very easily formulated.

(1.) The work being carried out by the direct observation of objects which are drawn in on the spot, causes plane-tabling to be the simplest and most effective method for training the beginner to appreciate the whole method of “mapping.” Further, the simple fact of one’s work being always before one, instead of being concealed amongst a mass of figures, is an enormous advantage.

(2.) When once the process of plane-tabling has been thoroughly grasped, the method of using the “cavalry sketching case” for mounted work, or of sketching with a pocket magnetic compass, or, last but not least, of “eye sketching,” all follow as mere developments or modifications of plane-tabling, no further instruction being required.

(3.) Plane-tabling is unquestionably more accurate than “prismatic compass” work, even supposing no errors be made by the draughtsmen with either instrument. The reason is obvious, since in the one the directions of objects are noted and drawn from their positions *as actually seen in nature*, whilst in the other,

owing to the class of instruments used for observing the "bearings" and subsequently plotting them on paper, it is physically impossible that the intersections can be absolutely accurate. Colonel Richards, who has had an almost unique experience of military sketching, and who all will allow to be one of the most expert and finished draughtsmen the British service has ever seen, thus epitomizes the relative accuracy of the two instruments:—"For my part, I may say that of the hundreds of miles I have surveyed with the prismatic compass, I have made it a habit after completing the sketches to compare them carefully with the 6-in. Ordnance Survey, and the result of it all is that I do not think I can be certain of my accuracy within 50 to 75 yards in a mile, whereas with the plane table my average error is certainly not more than half that quantity."

(4.) Plane-tabling and its outcome, magnetic compass and eye-sketching, &c., train a man to rely more upon the natural aids to sketching—if I may so term them—which are so much disregarded by those whose ideas have been concentrated in the prismatic compass; I mean the knack of taking advantage of small points in connection with a survey, and thus saving trouble, and what is more important, time in working it out.

As a simple example of this, a man who has been severely schooled to use a prismatic compass, if asked to identify a spot on a map coinciding with his own position, will only too frequently at once suggest that the "bearing" of two recognizable spots should be taken in order to "resect" it. Nine times out of ten, this could be done with far greater accuracy by observing the cross bearings of any natural objects by eye, or by placing oneself between, or in prolongation of, certain points. The plane-table man, accustomed to working from nature and with nature depicted before him on a map, will naturally resort to these aids in sketching; and failing them can always "set" his map and find out his position from *directly* observing the positions of recognizable objects.

(5) The possibilities of making a mistake in the work are vastly greater with the prismatic compass than with the plane table.

In the latter, so long as the operator takes the trouble to note that his board is "set," the mechanical process of directing the sight-vane of the ruler on the required object admits of no error, except from the grossest carelessness. Now with the prismatic compass there are six fertile sources of error. (Colonel Richards,

in his evidence before the Committee, stated he knew of *eight*.) These are :—

- (1.) Liability to read wrong bearing by taking the reading before the card has come to rest.
- (2.) Liability to read wrong bearing by mistaking the figures in the prism (Ex. 930° for 350°).
- (3.) Liability to plot the wrong bearing on the sketch with the protractor.
- (4.) Liability to adjust protractor on meridian lines inaccurately, so that an incorrect bearing is plotted.
- (5.) Constant liability to take the wrong intersections of bearings when plotted on sketch.
- (6.) Liability of compass to read altogether wrong on account of local attraction.

This last will probably be seized upon by those who advocate this obsolete instrument, and who will say, with a certain apparent amount of truth, that local attraction will affect a magnetic or plane table compass as equally as it does a prismatic.

Here then lies the difference. The plane table operator, when he finds his compass affected by local attraction, simply discontinues to use it, and carries on his sketch placidly by means of the "back-angle traverse," *i.e.* by setting his board on the back station. Similarly, the man engaged in sketching with the magnetic compass, resorts to "eye sketching." It may be argued that the latter process is equally available for the prismatic compass sketcher; but the difference is that the plane table man has been trained to sketch from nature with and without the compass, whereas the prismatic compass man has too often never realised what it is to sketch without taking and plotting "bearings."

This question of "local attraction" is a serious one; in fact, far more serious than some people imagine. In a civilised country it is met with in most unexpected places. I know of a *brick* railway bridge, across a deep cutting on the South Eastern Railway, where my compass has been deflected 40 degrees, and Colonel Richards has given me a curious instance of how, after all the prismatic compasses on a survey had apparently gone mad, he discovered that there were great iron water-pipes laid below the roads which absolutely vitiated all the observations.

The case of the local attraction in Zululand is on record.

Colonel Richards' final dictum is worthy of attention :—"As to the prismatic compass, it is an abominable instrument, and the complication of the system of observing directions in figures and

then transferring them to paper again by figures leads to endless mistakes between compass and protractor."

The one redeeming feature in the prismatic compass is no doubt its portability, and this enables it to be used on occasions when it is undesirable to attract attention, for with it a succession of bearings can be taken and entered in a pocket-book for subsequent plotting. Also in very wet weather it is sometimes a convenience to adopt a similar procedure. Having said this much for the prismatic compass, there is really nothing more to be said in its favour. I would go further, and even qualify what has been said. The class of officer who was employed on a secret survey of any country would hardly be a man who, because the plane table was the recognized Service instrument, would be unable to use a prismatic compass. He would or should be thoroughly acquainted with the use of all and every surveying instrument; and there is nothing in the world to equal a good "watch compass" for stealthily observing bearings on foot or on horseback in an enemy's country, without attracting attention. It is a notorious fact that threatened men live long, and this has applied to the prismatic compass, which, in spite of the weighty opinions against it in 1879, is still, in 1889, the orthodox implement for military surveying.

One fact of the greatest significance was elicited by the Committee of 1879, which should be borne in mind as the very basis of any system of field-sketching for the officers of our army. They had indisputable evidence that, in various recent campaigns, "the want of instruments required for military sketching *amongst the regimental officers* was much felt."

This, to my mind, is, perhaps, the very strongest of all arguments against the prismatic compass. It is sufficiently bulky to be rarely on the spot when required, and it cannot be used without a protractor; the loss of the latter rendering it, in fact, useless.

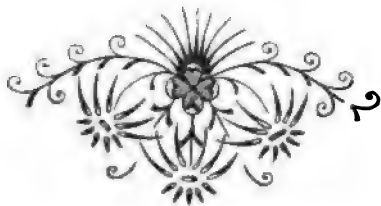
Now, if an officer be instructed in plane-tabling he can sketch with ease with a common pocket compass (which now forms part of his equipment). No protractor is required or time wasted in ruling "meridian lines" on the paper.

I carried a prismatic compass in the Soudan for many months, in the recesses of my kit-bag, and, although almost daily engaged in sketching and reconnaissance work, *never once wanted it*, because I had a common magnetic compass always handy, with which I could do far more accurate work.

Now it is a curious fact that, when this Committee was sitting,

nobody came forward to advocate the employment of some form of magnetic compass for the Service as a portable instrument where a plane table could not be employed. There were officers there who knew well the value of this instrument, but somehow it appears to have been overlooked or considered as unworthy of attention, the whole energies of the committee being apparently concentrated on the respective merits of plane-tabling *versus* prismatic compass sketching.

This, then, is the point to which I am most anxious to direct the serious attention of all those who look upon military sketching as something higher and more practical than a mere subject for examinations, and which I will now endeavour to formulate as briefly as possible, viz., that the plane table should be the basis of instruction for all military topography and the instrument used for military surveying, and that the pocket magnetic compass should be the instrument with which every British officer should execute military sketching and reconnaissance work.



The Canadian Campaign of Montgomery and Arnold in the Winter of 1775.

By F. DIXON.

II.



AT this crisis the men of Chambly came, for a second time, to the assistance of Montgomery. One fine October morning, urged on by James Livingston, of New York, they marched boldly out to the English fort at their gates, and demanded that it should be given up to them. There was no earthly reason why their demand should have been acceded to; but all through the War of Independence, as though dogged by some inexorable Nemesis, it seemed only necessary to give an English commander the opportunity of committing an error to make sure of his cheerfully accepting it. Next day, much to the surprise of the besiegers, the commandant basely surrendered. The garrison was marched out as prisoners of war; their colours were forwarded as a trophy to Congress; and, most important of all, seventeen cannon and six tons of powder found their way to Montgomery's camp.

Simultaneously with this windfall from Chambly, Montgomery received intelligence that the expedition for the relief of St. John's was at last ready to take the field. Behind the walls of Montreal, by dint of almost superhuman exertions, Carleton had at last got together a motley collection of Indians, regulars, and Canadians. With eight hundred of these he was to push across the river, and having joined hands with Maclean, who was on the march up from Quebec with another hybrid contingent, force his way into St. John's. Montgomery adopted the heroic policy; keeping one hand tightly fixed upon the throat of St. John's, which by this time was beginning to gasp, he hit heavily out at the new-comers with the other. Easton was sent, with a brigade, to wait for Maclean at

the mouth of the Sorel; and at the same time, 800 men under Warner were marched over to the St. Lawrence to receive Carleton. On the Eve of All Hallows the sentries at Longueuil saw the long-expected flotilla stealing out from under the guns of Montreal. The men fell in in silence on the bank. Ethan Allen's old regiment, the Green Mountain Boys, was there, eager to avenge its chief. As soon as the flotilla was well within range, they poured their fire into it. To do them justice, Carleton's troops never hesitated; they simply pulled their boat right-about, and fled as hard as they could row back to Montreal. Once safe again on land, these terrible warriors melted away like their own snows at the approach of spring. The news of their collapse, carried rapidly to Maclean, succeeded in robbing him too of his levies. Carleton, indeed, found himself once more in his chronic condition as a commander of troops, concerning which he might well have cried, "*Quorum major pars fui.*"

The rattle of Warner's bullets on the sterns of Carleton's flying flotilla was the funeral volley over the hopes of the garrison of St. John's. Three days later the white flag waved over the rampart, and the troops marched out with the honours of war.

The fall of St. John's rendered the evacuation of Montreal absolutely imperative. With the hundred odd regulars and Canadians at his disposal, Carleton could not have held it for ten minutes against the victorious Americans. And already Montgomery was pressing forward through the fast deepening snow to the attack. On the 11th of November, therefore, just a week after the capture of St. John's, Montgomery being then within a day's march of his outposts, Carleton bundled his men on board the small craft in the harbour and, turning his back upon the scene of his many failures, set sail for Quebec. Even now his disasters were not at an end. As he approached the mouth of the Sorel, he learned that the St. Lawrence at that point was blocked by Easton's troops. There was nothing for it except to fight or surrender. But Carleton was anxious to reach Quebec without further delay. He, therefore, handed over his command to Prescott; and, having disguised himself as a peasant, boarded one of his skiffs, and under cover of a black winter's night slipped in safety past the American guard-boats. Two days later he arrived at Quebec, only to find Benedict Arnold encamped before it. Prescott was less fortunate. He who had raised his cane, with an oath, against an unarmed man on the parade ground at Montreal, showed little inclination to draw his sword in sober earnest. The morning after Carleton's escape, he

surrendered his whole fleet, out of sheer cowardice, to the American general.

Meantime Montgomery had arrived in Montreal. The day after Carleton's flight he entered it in triumph. He came, not as a conqueror to demand ransom, not like old Marshal "Forwards" with an eye for plunder; but, extending the olive branch of revolutionary brotherhood, to call upon the Canadians, in the words of Washington, "to range themselves under the standard of general liberty." He wrote earnestly to Schuyler, pressing him to come and winter in Montreal, and take in hand the reorganization of the political machine. He himself had other work to do—Arnold's messengers had come in from Quebec. They brought him news of the wonderful march through the interior; they drew for him a picture of an army, bare-footed and in rags, but still great in heart; they told him how that general, with less than seven hundred men, and those reduced to five rounds of ammunition apiece, was yet making a brave show before the castled rock upon the St. Lawrence, which men called the Gibraltar of America. All this, with many stories of individual heroism and devotion, they poured into his sympathetic ears; and he listened, and as he listened resolved to do his part. Then, though the northern winter was howling along the St. Lawrence; though he was utterly destitute of the necessary artillery, and though his men, lacking his spirit, were deserting by hundreds, he announced his intention of attempting the capture of Quebec. Even now, while his success was in all men's mouths, he thought little of the praise of the world; his thoughts wandered sadly back to his home at Rhinebeck and the dear ones he was never to see again. "I have courted fortune," he wrote, on the eve of his new enterprise, "and found her kind. I have one more favour to solicit, and then I have done." On the 20th of November, accordingly, he bid good-bye to Montreal, and sailed out into the St. Lawrence, in the track of old Jacques Cartier. Eight days later he stood by the side of Arnold in the snow before Quebec.

"The traitor Arnold!" That is the last word of America concerning the intrepid, unscrupulous self-seeker who was to be Montgomery's colleague in the last act of that drama which, as amid a storm of wind and snow the old year slipped away, was played out on the cliffs beneath Quebec. "Sire, the traitor Arnold!" That, too, was the half-surprised, half-indignant exclamation of the British Peer to whom the King would have presented his new general. The nation from whose vengeance he fled, the nation to whose contemptuous toleration he turned for

shelter, have meted out to him a common execration. But the day of the great betrayal had not yet dawned ; as yet the glory of Ticonderoga was reflected in his name. In these the early days of the war he was known only as a capable and dashing officer ; a man with a frame of iron, and the pluck and tenacity of a bulldog. It was true he had already deserted from the English forces ; but that, at the worst, was probably only the freak of a boy who, fascinated by a red coat and the blare of the trumpet,



BENEDICT ARNOLD.

had enlisted merely to grow restless of the monotony of garrison existence. It was likewise true that there were ugly stories afloat as to his doings subsequent to the capture of Ticonderoga ; but then the state of discipline throughout the revolutionary armies was itself ugly. Acts which, if committed by a Pomeranian Grenadier or one of Ziethen's hussars, would have been quickly visited by the attentions of the provost-marshal were of hourly occurrence under the rule of the Continental Congress. For Wash-

ington's present purpose Arnold was the heaven-sent instrument. The Kennebec expedition, which to the stereotyped military mind seemed merely madness, to the man who as a boy had scared his school-fellows by clinging firmly to the sail of a wind-mill as it whirled him now high above their heads and now beneath the waters of the mill-chase, appeared an ordinary undertaking. Northward from the mouth of the Kennebec the untrodden forests of Maine and Canada rolled onwards to Quebec. The secrets of their depths were unknown to man ; occasionally, at long intervals, a stray Indian or some solitary trapper, wrapped in his furs, with his game-bag at his side and his long rifle on his shoulder, might penetrate to the banks of the St. Lawrence. But for an army, burdened with its necessary stores, to follow through the trackless forest jungle the windings of the chain of streams which connected the great river with the ocean, was a labour worthy an Atlas or a Hercules. Yet such was the task which stared Arnold in the face, as on the eve of the departure of his

expedition, he stood upon the deck of the Broad Bay schooner in the harbour of Newbury. A few days later the flotilla sailed into the Sheepsgut river, and anchored off Cape Copelins. Here the heavier craft were left; the boats were manned, and they started to row up to Fort Western.

In the block-houses of Fort Western, Arnold completed the details of his plan of campaign. An advanced guard of seven pioneers was to push forward through the jungle, firing the bushes as they went to mark the way. The army, 1,100 strong, was split into four divisions, which were to follow each other at intervals of a day. Forty-five days' provisions, it was calculated, would see them through. Then, on the 25th of September, all being ready, Morgan embarked his riflemen and led the way. The divisions of Green and Meigo followed on successive days, and on the 28th Enos brought up the rear. The weather was cold and rainy. The current of the Kennebec proved too strong to pull against, and the men were forced to take to the river, and, wading to their waists in water, haul the boats against the stream. And in this manner they came to Fort Halifax. In the painful onward struggle from Fort Halifax, the signs of habitation became of daily rarer occurrence, till at last one afternoon as, with their boats upon their shoulders, they tore their way through the thickets which close in upon the Scowhegan Falls, they stumbled upon a ruined Indian chapel and the grave of the Jesuit Rasles, and knew that they stood upon the threshold of the wilderness.

For now on the very spot they stand
Where the Norridgewocks fighting fell.
No wigwam smoke is curling there;
The very earth is scorched and bare;
And they pause and listen to catch a sound
Of breathing life—but there comes not one,
Save the fox's bark and the rabbit's bound.
And where the house of prayer arose,
And the holy hymn at daylight's close,
And the aged priest stood up to bless
The children of the wilderness,
There is naught—

Two nights later, amongst the log cabins of Norridgewalk, they rested for the last time for many a terrible day in sight of houses built by hands. Before them stretched the forest land of Maine; from its heart, between two walls of jungle, the swift Kennebec whirled downward to the ocean.

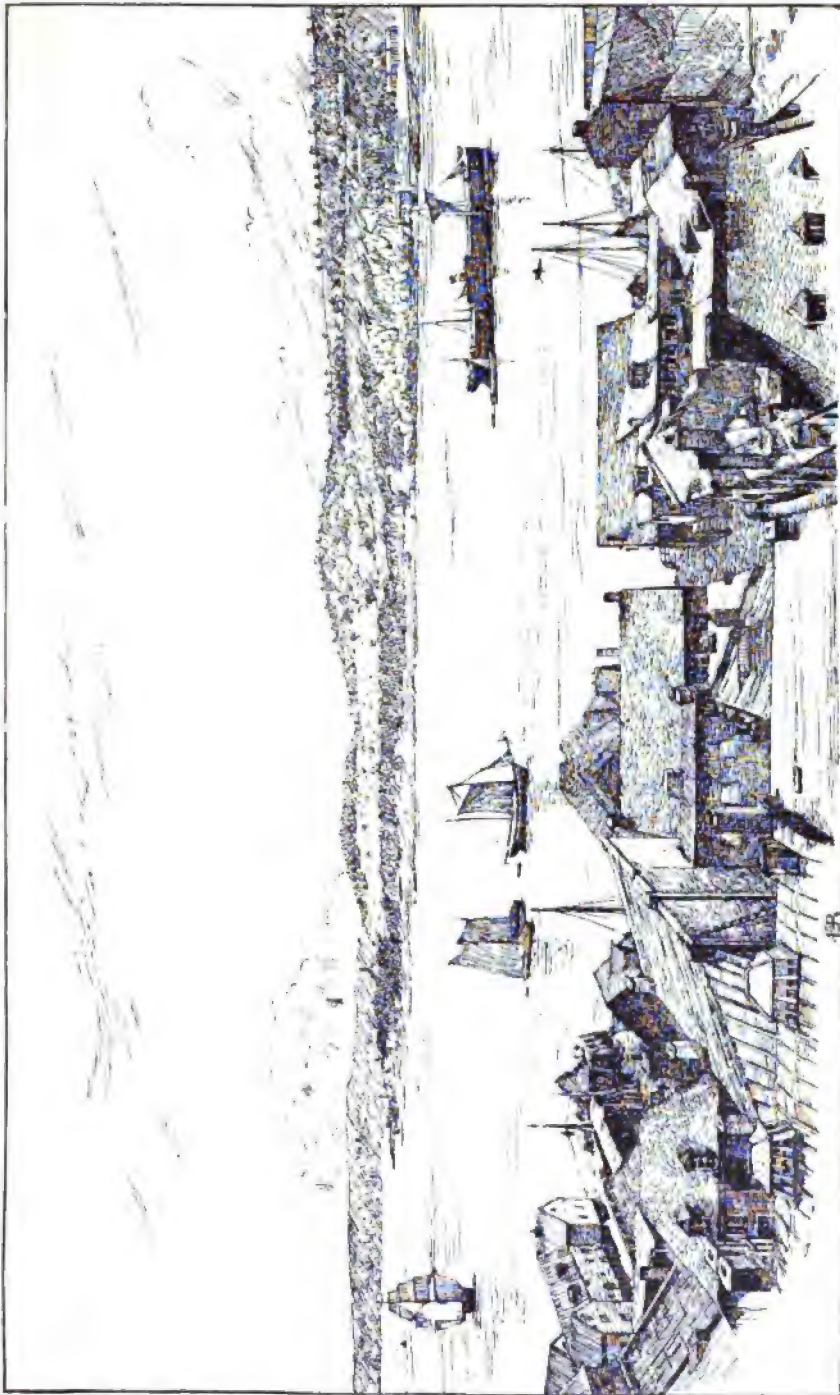
And now commenced a struggle compared with which the march to Mexico, or the descent upon Cuzco, fail in romance. The cold

was bitter; their food scanty; their bed a pile of leaves beneath the shelter of a neighbouring bush. In the daytime now straining over the oar, now up to their necks in water hauling the boats, and now carrying them on their backs round cataracts and rapids, they fought the stream mile by mile to its source in the mountain ridge which separates it from the Dead River. It was the mid October as, with their boats upon their shoulders, they climbed the mountain side. From the summit their way lay through woods of pine and cedar, of oak, of hemlock, and of yellow birch. Sometimes they were forced to take to their boats, and paddle across the forest pools which spread like lakes before them; sometimes, for miles together, they sank at every step knee deep beneath the carpet of white moss which hid the treacherous swamps. Foot-sore and ragged, yet with dauntless hearts, they staggered slowly forward, until at length they struck the Dead River, and once more launched their boats. And now began again the battle with torrent and with rapid. This Dead River proved unfitly named; its current more furious and its cataracts more frequent than those of the Kennebec. For eighty-three miles they tracked its course along the base of hideous mountains, whose peaks were thick with rain, into dense forests laced with undergrowth of bramble and of thorn, through poisonous alder-swamps, and across ponds choked with up-rooted trees, till they once more drew out their boats at the foot of the great watershed from the opposite slope of which the Chaudière takes its spring.

On the side of the mountain range which divides the forests of Maine from those of Canada Arnold paused. His troops were carefully inspected. And on the 24th of October, forty men, declared utterly incapable of facing the march into Canada, were sent to the rear, with orders to Enos to take the steps necessary for their conveyance home. All that night it snowed heavily. Next morning, as they pursued their march, news overtook them of how the craven Enos, professing to misread Arnold's instructions, had deserted with his whole division and stolen away for Boston. The contagion of such an example might have proved disastrous, for when panic sets in the bravest man often runs with the poltroon. Fortunately, the remaining companies proved true; they at least were all of the tenth legion; the cowardice of the fourth division found no imitators. Up the mountain wall they scrambled, and down into the valley of the Chaudière. Compared with this Canadian torrent, the passage of the Dead River or the Kennebec was remembered as a labour of ease. The full blast of the northern

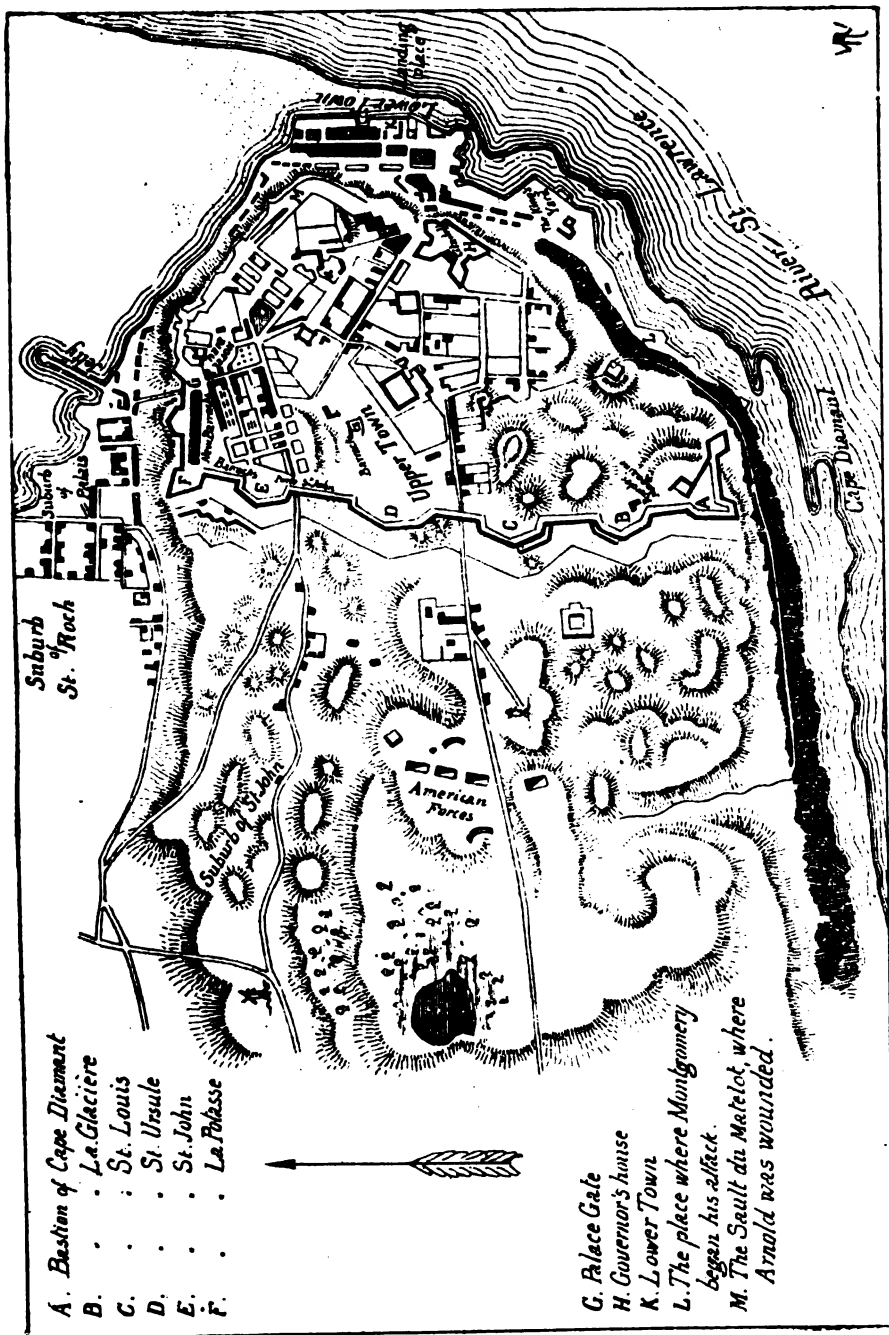
winter struck in their teeth ; and each new day seemed to dawn only to add another misery to those they already endured. In the rapids of the river two canoes were dashed to pieces, and their precious cargoes of food whirled down the stream. Famine stared them in the face. For days they subsisted by boiling the hides shipped for shoe leather, and sucking out their juice. The guts of a squirrel or the carcase of a dog were regarded as positive delicacies. Hour after hour, half naked, and with what rags they owned frozen to their backs, they plodded bare-footed through the snow. Often, even as he marched, a man would stiffen from cold and hunger, and pitch forward to die where he fell. By night they crouched for shelter beneath branches torn from the bushes in the woods. By day, in icy rain or blinding snow, now knee-deep amongst the alders, now splashing through mud and slush, now limping along the thorn-shagged banks, they hauled their boats down stream. At last, when it seemed as though nature could endure no more, help came to them, like manna in the wilderness. One bitter November day, as they toiled dejectedly along, a party of French Canadians met them with a herd of five oxen. The starving soldiers went nigh mad at the sight ; they shouted and danced with frantic glee, and fired off their muskets in a veritable *feu-de-joie*. Pressing forward with stimulated energy, they passed, two days later, the first house they had seen since they loosed their hawsers from the bank at Norrigewalk. Henceforth their course lay through a civilized country. The dismal forests opened up, and gave place to cultivated fields ; they passed by the low deep-eaved homesteads of the Canadian peasantry, and noticed here and there the rudely carved images of the Virgin and the Crucifixion which denote the presence of a Catholic population. And now they were rapidly nearing the river. On the 8th, the advanced guard bivouaced six miles from Point Levis. On the 10th they stood by the side of the St. Lawrence, and gazed over at the British war-ships at anchor under the guns of Quebec.

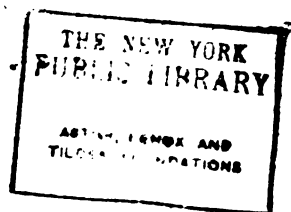
Their presence was no secret. Two days previously, Indian spies had climbed the narrow path which leads to the citadel with news of their approach. The bank on which they stood had been swept of boats ; and in the stream the guard-ships of the British were anchored to dispute their passage. The days which intervened between the arrival of the different divisions were spent in making ladders and in a vigorous search for boats. Even then, when on the 18th the rear guard marched into camp, only twenty-five bark canoes had been secured. Despite the inadequacy of his



POINT LÉVIS, FROM QUÉBEC.

fleet, Arnold determined to attempt the passage that very night. The means at his disposal would, he calculated, necessitate four journeys. Every additional journey aggravated the danger of discovery; but delay he deemed a greater danger still. The night proved favourable to the undertaking. Late in the evening the men were mustered by the water-side. At 9 o'clock the order was given to start. The men pushed off from the bank, and the canoes disappeared into the night. Then followed a period of intense excitement to those left behind. Every moment they expected to hear the rattle of musketry, or the dull boom of the ships' guns opening fire on the flotilla. Not a sound broke the dead quiet of the river. At length the faint splash of the returning paddles was heard, the canoes glided out of the darkness, and once more ranged along shore. Without delay the second division took their places, and the flotilla pushed off again. There was the same period of suspense; and then the canoes returned and embarked the third division. They, too, landed in safety. It was 4 o'clock when the boats turned to go back for the last division. The dull winter morning was beginning to break. Suddenly the watch on board the British ships discovered what had been going on all night under their noses. The boatswains' whistles sounded, calling the crews to quarters. The game, for the present at any rate, was up, and 150 men stood cut off on the far bank. Without hesitation, Arnold placed himself at the head of the 500 men who clustered on the shingle of Wolfe's Cove, and led them up the heights which rise to the Plains of Abraham. A few hours later, when the November twilight broadened into day, the sentinels on the rampart of Quebec caught sight of the gallant scarecrows drawn up on the historic ground where Wolfe had once offered battle to Montcalm. There the resemblance ceased. With an army smaller than that which he was supposed to be besieging, without food, with a hundred of his muskets damaged beyond use, and with but five rounds of cartridge in his pouches, Arnold was in as bad a fix as Ethan Allen when exposed to the garrison of Montreal, and had Carleton sallied out his fate must have been a similar one. Luckily for him, Carleton was ignorant of his necessities. As the day wore on, Arnold marched towards the town. Close by the walls he called upon his men to give three cheers, and then sent forward a flag of truce to demand the keys. His flag, like his cheers, was treated with contempt; and as he did not even possess sufficient ladders for an assault, there was nothing for it but to retreat. For a day or two he made a pretence





of a blockade, till finding that Carleton, safe behind his bastions, showed not the faintest intention of emulating the tactics which had cost Montcalm his fortress and his life, he marched off down the river to Point aux Trembles, there to await the coming of Montgomery.

On the 3rd of December, the shivering wretches at Point Aux Trembles caught sight of Montgomery's vessels descending the river. A few hours later, the conqueror stood before them. He brought them food and clothing from the stores captured at Montreal. He spoke in glowing praise of their heroism and devotion; he thanked them, in their country's name, for the sufferings they had undergone; and told them that he had come to throw in his lot with theirs, and lead them to their crowning victory, the capture of Quebec. On the 6th he fixed his head-quarters at Holland House, and summoned the garrison. His demands were treated with the same scorn as those of Arnold; neither did a second summons, shot into the town upon an Indian arrow, win any response. Carleton deemed himself too strong to hold any kind of parley with rebels. If Quebec was to fall, it was clear that, in the words of Montgomery, "to the storming plan they must come at last." "Wolfe's success," he wrote, "was a lucky hit, or, rather, a series of lucky hits. All sober and scientific calculations were against him, until Montcalm, permitting his courage to get the better of his discretion, gave up the advantage of his fortress, and came out to try his strength on the plains. Carleton, who was Wolfe's quartermaster-general, understands this well; and, it is to be feared, will not follow the Frenchman's example." The other alternative, a blockade, he dismissed as impracticable. In the midst of a Canadian winter, with small-pox and pneumonia already ravaging their lines, such a policy must have proved more harmful to the besiegers than the besieged. His officers were of his opinion. At a council of war, on the night of the 16th, it was resolved to attempt the capture by assault, as soon as the men could be provided with bayonets, hatchets, and hand-grenades.

"Fortune," said Montgomery, in winding up the debate, "favours the brave; and no fatal consequences are likely to attend a failure."

The forces at the disposal of Montgomery wherewith to carry out this resolution consisted of some nine hundred Americans and two hundred Canadians. These men, natives of various States, were enlisted under different regulations for varying periods of service. The engagements of the New Englanders would expire on the 31st

of December. On that date, Montgomery had little doubt they would demand their discharge. Even if they remained, it would be as an unruly mob, over whom he had no legal authority. As it was, their officers were showing signs of disaffection which were only checked by his tact and determination. Late one night the general strode into their quarters and confronted them. He was aware, he told them, of their recreant conduct. And then, in fiery words, such as King Harry poured forth, in the night hail, on the eve of Agincourt, bade them, since they had no stomach for the fight, stand aside—"he would compel none; he wanted with him no persons who went with reluctance." His spirit prevailed, the officers were won back; still, in the face of such a warning, he deemed it wisest to make the assault before the New Year. Meantime, he made a pretence of a bombardment. But whilst his dozen small mortars, howitzers, and 12-pounders made no more impression than pebbles on the works of the fortress, the heavy guns of the garrison, two hundred in number, replied with murderous effect, smashing down his breastwork of snow and ice, killing his gunners, and utterly destroying his guns.

The stake for which Carleton and Montgomery were about to throw was worth the winning. The fate of Quebec was the fate of Canada. One after another the northern fortresses, Ticonderoga, Crown Point, St. John's, and Montreal, had opened their gates to the troops of Congress. Quebec alone remained. If in the midnight struggle on the 30th of December, Montgomery had succeeded in wresting the rock from the clutches of the British, the French peasantry would have ranged themselves on the side of the victors, and Canada become an integral part of the American Republic. The troops upon whom Carleton relied to avert this disaster were very different to the motley horde which had fled at the first volley fired into them by the Green Mountain Boys from the bank at Longueuil. The province had been beaten up for recruits, and of the two thousand men who now formed the garrison more than twelve hundred were English. Newfoundland had sent a hundred sturdy operatives; the veterans of the disbanded Highlanders, who had settled by the St. Lawrence, had shouldered their muskets once more at the call of Allan Maclean, every available seaman and marine had been pressed from the ships in the river; a large body of the militia had proved loyal; and the Indians had taken up the hatchet on behalf of their white father, the King. With such addition to the regulars of the garrison, Carleton prepared confidently for the assault. He had not long to wait. Late

on Christmas night a deserter from the American lines was brought to his quarters. That very evening, if his information were correct, a council of war had determined upon a night attack on the lower town. From that moment, till the assault was delivered, Carleton and two-thirds of his garrison slept in their clothes. At midnight, on the 30th of December, the flare of the rockets, whizzing up from Cape Diamond, told them that the hour had come.

The intelligence which Carleton had received was true in substance and in fact. By the moonlight of Christmas night Montgomery had reviewed his troops and settled with his officers the details of the attack. Brown with a handful of Americans was to climb up to Cape Diamond, and fire from that promontory the signal rockets for the grand assault. At the same time, Livingston and his Canadians were to storm up the rising ground before St. John's Gate. Both these demonstrations were feints. The real attack was to be delivered simultaneously by Montgomery from the south-east, and from the north-west by Arnold. With three hundred men, Montgomery was to rush along the narrow ledge of rock which clings to the side of the precipice as it winds with the river from Wolfe's Cove towards the tower; whilst Arnold, with six hundred more, was to force his way up the ravine-like lane of houses, known as the Sault-au-Matelot, which creeps along the bank of the St. Charles, between the beetling, rampart-crowned cliff on which the upper town stands, and the mass of detached rock piled upon the river bank. Starting from these points, Montgomery and Arnold would, if successful, meet in Mountain Street, by Prescott Gate.

Having settled the details of the attack, Montgomery only waited a favourable night to put them into execution. The 26th was clear, but so intensely cold that men could not use their hands. On the evening of the 27th, a thick mist covered the ground; the troops were put in motion, but as they marched out to their stations, the haze lifted rapidly, and Montgomery sent word to his different generals to bring in their divisions, and wait a more suitable occasion. The next two nights were again clear. Then, on the 30th, the wind shifted. A gale from the north-east brought up the clouds. The evening closed in in a storm of hail and snow. Shortly after midnight the troops were mustered for the fight. That they might recognize one another in the darkness, each soldier wore in his cap a strip of white paper. On these the men wrote the words "Liberty or Death!"

The morning of New Year's Eve had dawned. The clocks in the

town were striking the second hour of the day as Montgomery led his division, consisting of the men of New York and Easton's militia, down the narrow path from Holland House to Wolfe's Cove. The storm was raging along the St. Lawrence; and as they floundered through the snow, and scrambled over the ice that choked the narrow path which wound along the foot of Cape Diamond to Aunle-au-Mère, gust after gust of wind drove the biting hail in their faces. At length, at the end of two miles, they reached the defile which led upwards to the lower town and found the first barrier undefended. The path was a mere shelf of rock, clinging to the face of the cliff, and half way up it the garrison had built a block house and planted a battery. Within the captured barrier Montgomery halted the van. Almost at the same moment the flare of the rockets, as they screamed up from Cape Diamond, flashed east and west the signal for the attack. By some mistake, Brown had fired them too early. The bulk of the men, weighted with their scaling ladders, were still far behind, but to have hesitated would have been to throw away any chance of a surprise, since the signal which urged them forward warned the enemy of their advance. Sword in hand, Montgomery faced the handful of men grouped around him. "Men of New York," he thundered through the storm, "you will not fear to follow where your general leads. Push on, brave boys! Quebec is ours." The winter morning was just beginning to break. Through the grey twilight the lines of the block house were visible to the men as they rushed up "Cove Road." Not a light was to be seen; not a sound gave warning that the garrison was on the alert, but the English seamen stood beside their guns with matches burning. Suddenly a shower of fire-ball lit up the scene. For a moment the scarp, rugged precipice gleamed through the mist; for a moment the black bosom of the torrent rolling along its foot was flecked with fire; for a moment the snow-clad forms of the stormers stood out from the dark setting of the night. Then came the quick flash of the artillery, the roar of the cannon echoing along the cliff. When the smoke lifted a mass of dead was seen choking the rocky way, and the body of Richard Montgomery lying at their head. The front of the column had been literally blown away. The remnant hesitated, and at such a moment to hesitate is to fail. The assault, at the best but a forlorn hope, became to the wearied and dispirited troops a hopeless one. The word was given to retreat, and the column surged sullenly back, leaving the dead to the generosity of the victors.

Whilst Montgomery was lying dead on the rocks above the St. Lawrence, the second division, consisting of the companies from Cambridge and Lamb's artillerymen, was dashing itself in vain against the defences on the opposite side of the town. Cheered on by Arnold, they rushed, unheard amidst the din of the tempest, through the suburb of St. Roque, and gained the foot of the battery which swept the approach to the Sault-au-Matelot. The ladders were quickly planted. The artillerymen led the assault; but, as they climbed up, a storm of bullets rained upon the ladders. Arnold was amongst the first to fall, his leg shattered to the bone. Dearborn's company, struggling to the front along the ice-packed foreshore of the St. Charles, passed their wounded general as he was carried out of action. For an hour the fight raged furiously round the redoubt. Rush after rush was made up the ladders, until at last, Lamb's men, headed by Morgan, surged over the parapet and swarmed into the battery. It was still quite dark, and the snow, which had never ceased to fall, seemed to come down with increased fury, as the victors plunged forward along the lane in the direction of the lower town. In a few minutes, if all were well, they would join hands with Montgomery. Suddenly, almost at the point of rendezvous, a new obstacle loomed ahead in the darkness, and they found themselves at the foot of a second barricade. The *élan* of the attack had spent itself. Those furious sixty minutes at the mouth of the Sault-au-Matelot had knocked the "go" out of the men, yet over this barrier they must get before they could stand in Mountain Street. With undamped spirit Morgan and Greene headed the assault, but it was hopeless from the first. Certain now that the other attacks were either feints or failures, Carleton had concentrated all his force at this point. And as stormer after stormer rushed up the ladders, and stood out upon the parapet, it was only to be promptly hurled back into the darkness from out of which he had sprung, or pitched forward on to the bayonets massed in the street beyond. For three mortal hours the fight went on, until the increasing daylight discovered to Carleton the strength and position of the enemy, and he sent out a detachment to take them in the rear. Even then, surrounded on all sides, the undismayed Morgan was all for cutting a way out through the passage by which they had come in. But this it soon became clear would be only useless slaughter; and he was fain to surrender with his men and trust to the humanity of the victors.

When all was over a party was sent out from the garrison to

search for the body of Montgomery. They found him side by side with his friend and aide-de-camp Macpherson ; and on the scarp face of the overhanging crag they wrote the words, " Here fell Montgomery." His grave, by the wish of Carleton, was dug upon the hill side within the ramparts of Quebec. Thither, from the house in St. Louis Street, to which his body had been carried from the field of battle, it was taken with all the honours of war ; and then, as the chaplain closed the book, there rang out over the valley of the St. Lawrence those farewell volleys without which no English soldier lies down to rest from war.

The death of Montgomery sealed the fate of the army before Quebec. The wounded Arnold might cry from his pallet, " I have no thought of leaving this proud town until I enter it in triumph " ; but his men did not breathe this indomitable spirit. The hand which had held together the discordant elements that Congress called an army was clenched in death. The Canadians became openly hostile ; the very Americans, as their engagements expired, discharged themselves. It was in vain that reinforcements were hurried up from Boston ; in vain that general after general came to try his luck. Confusion became only worse confounded. In rapid succession the British transports forced their way through the ice in the St. Lawrence. Regiment after regiment was added to the command of Carleton, until at last, at the head of 8,000 men, he came down from Quebec and swept the rebels out of Canada.

The news of the fatal work of the morning of New Year's Eve was received throughout the States with universal grief. It is said " that the whole city of Philadelphia "—where Montgomery had made his home—" was in tears ; every person seemed to have lost his nearest relative or heart friend." The representatives of his adopted country, gathered in Congress, proclaimed for him " their grateful remembrance, profound respect, and high veneration " ; and ordered that his monument, carven in spotless marble, should be erected in New York before the doors of the Church of St. Paul. Forty-two years later those doors stood open to admit a solemn procession, as the bones of Montgomery, brought tenderly from his grave in the grim northern fortress, were carried up the aisle to their last resting-place, in the capital of the State he had so truly served.

In his native land the news of his death was received by his many friends and admirers with the deepest sorrow. Within a few hours of the receipt of the intelligence, the House of Commons

went into Committee on an Army Bill. Rising in his place, Colonel Barre who, in happier days, had stood shoulder to shoulder with the dead man in the trenches before Ticonderoga, censured in unmeasured terms the Government conduct of the war. "How different were things," he exclaimed, "to the glorious days of the Great Commoner! Then, at the head of forty thousand victorious veterans, Wolfe and Amherst had torn Canada from the grasp of the first military power in the world; now, for the same cost, Gage and Howe, with but eight thousand dejected men, submitted to be cooped up in the streets of Boston by a rabble of rebellious farmers. Why this change? It was not that the difficulties were greater; it was that the men in authority were incompetent. If they would know what patriotism and devotion might ever accomplish, then witness the achievements of General Montgomery, who, with a handful of ill-armed, badly-found heroes, had conquered in one short campaign two-thirds of Canada."

Burke and Fox followed on the same side, the great Whig vying with the great Irishman in glowing tribute to the soldier who had been their friend.

At last North rose to reply. He defended himself as best he might against the strictures of Barre, and censured bitterly the eulogy which had been pronounced upon Montgomery. He was indeed, he admitted, brave, able, humane, generous; but still he was only a brave, able, humane, and generous rebel, to whom the verse of the tragedy of Cato might be applied: "Curse on his virtues; they've undone his country."

Wanderings of a Man Artist.

NEW SERIES.

THE RUSSO-TURKISH WAR.

By IRVING MONTAGU.

CHAPTER V.



SINCE I perfectly agree with that philosophic soul who once suggested the advisability of borrowing from oneself by the temporary deposit of one's watch at one's "uncle's," as being a course far more independent than that of circumventing a friend or falling back upon an I O U, I cannot do better than continue this narrative by submitting my original notes of the following experience.

"It was now well into the night, and as the hours between this and daylight could not be occupied by a continuance of these vague wanderings, we had to camp as best we could. This had to be done with some discretion, so that our whereabouts might not be discovered by any prowling Kurds or Circassian malcontents, who at any moment might come down in overwhelming numbers on our little troop. Thus it was that even the luxury of pipes was denied, lest the tell-tale spark should betray us. So we crept noiselessly along till we were almost enveloped in long dank grass and lost in brushwood, each man carefully leading his horse with one hand, while in the other he held his six-shooter ready for emergencies.

"Half an hour had probably been thus occupied and still no convenient place had been found, when Johannes' horse, utterly exhausted, fell by the way. This, accompanied by the distant sound of trickling water, which promised well for the morning, decided beyond argument our course. To go further having become impossible, it was thought wise by some before we rested

to ascertain the whereabouts of the water-course. This however was overruled by the majority, so we proceeded to bivouac.

"While tethering our horses one slipped, soon recovering himself, over what we supposed in the darkness to be the rough edge of a ditch. This trifling circumstance would not have attracted notice had not my dragoman again called my attention to that sound of rippling waters, with the renewed suggestion that it would be better, he thought, to move a little nearer the inviting allurements; but finding that several of our party had picqueted their horses meanwhile, and were already rolled up in cloaks and rugs, prepared to snatch what sleep they could before daylight, we abandoned the idea.

"A few minutes later and all remembrance of that dreary



night's ride was steeped in sweet forgetfulness. Now, however, comes the *dénouement*.

"At the first streak of dawn we were untethering our horses and preparing for our onward journey. A dense vapour made all as imperceptible around us as if we had still been enveloped in the shades of night. This happily was not long in lifting, and then it was that we realised the terrible death which we had so narrowly escaped.

"We had encamped on the very edge of a most frightful precipice, so close in fact that the correspondent to the *Manchester Guardian*, my dragoman and myself, had slept upon its very brink,

and the rippling water which had so tempted us to advance a little further was now to be seen, like a silver thread, wending its way hundreds of feet below."

We had been on the verge of a danger little anticipated; a collapse more complete than our wildest imagination could possibly have conjured up. Yet, in this highly-cultured nineteenth century of ours, how many so-called scientists there are who, putting down that which comes within their own small limits of penetration to natural causes, ignore altogether that first of all causes—the Deity, who brings all others about, and to whose marvellous providence they and we are indebted for salvation from the pitfalls into which in our blind ignorance we should otherwise continually stumble. It was no chance or accident which made us thus hesitate on the very brink of destruction, when allured by the sound of those rippling waters. No; "there is a divinity which shapes our ends, rough hew them as we may."

Suddenly finding oneself about to spend a night in the open, in some unknown locality, one is naturally subject to many surmises, for which fatigue finds a compensating balance in the shape of sleep. In this case there had been serious reasons to anticipate a night attack from Kurdish brigands, nor did the many savage beasts, described by the natives as being in abundance up country, fail to concern us, though in an experience extending over many years, I have found, when travelling in such remote places, the proverbially *wild* animal conspicuous by its absence. True, by laying a snare over-night, the bear and (occasionally) the cheeta, the wolf and jackal, and, of course, many varieties of birds of prey will come to the fore; but, as a rule, there's a certain bashfulness about these lords of the forest which, unless indeed they are driven by hunger, cannot be too highly esteemed.

One object which struck me was a huge, formidable-looking spider. It was, I understood, quite harmless; but, nevertheless, the first time I saw one it just a little disconcerted me. Its eyes (large dark ones) winked and blinked at me from out its great head, and as it waddled towards me on its great long hairy legs, it had a curiously knowing, almost human, aspect. I felt it was alternately grinning and frowning at me, suggesting as it did so a middle-aged gentleman with great goggle spectacles looking for lodgings in a quiet neighbourhood.

Then, again, talking of things small but interesting, there was a wonderful owl to be found in these latitudes, about three and a half inches high, the loveliest Liliputian it is possible to imagine,

a species often to be met with in the East; it looked as if specially designed by Nature to perch on the helmet of some tiny Minerva in the land of sprites. Surely such a country as this, teeming with mineral wealth, and prolific as it is in many parts as far as vegetation is concerned, should have long since commended itself to the speculative civilizers of modern times. Good roads, communicating with the coast, might be the first step towards railways, which would thus rapidly connect the Persian markets with those of Europe, besides opening up the country through which they passed. And then, if the denizens of the forest were driven a little further afield, and that curiously inquisitive, middle-aged spider had, with the diminutive owl, to find "fresh hunting-grounds," still the country would have been developed, the ends of science served, and the world benefited to no small extent, after all.

The word science seems, though for no particular reason, to bring me to *cipher*, so I may here refer, in passing, to some of the many ingenious methods for conveying secret information from place to place resorted to during war. It was explained to me how *supposed* orders of a commercial kind for supplies—say, bread, rice, fodder, &c., each word having, in a key, a military significance—are very commonly resorted to. Thus, supposing the word "send" to mean *advancing*, and "10,000 bags" to mean 10,000 *Russians*, and "of" to mean *on*, and "rice" to mean *Kars*, then the reading of the sentence, "Send 10,000 bags of rice," would mean 10,000 *Russians advancing on Kars*. But there is an infinitely simpler cipher than this, which is, I understood, often put into successful operation.

It is that of an empty envelope being sent from one place to another, with no clue whatever to its real meaning. Of course, guesses may be made at the method of address, but to rely on this would be more misleading than enough, since the message is conveyed through the medium of the postage-stamp. This is arranged by the *angle* at which it is affixed being the means by which those having the key can ascertain the message intended to be conveyed. Thus, an angle of 75 deg. means, on that key, "Russians advancing"; while 45 deg. means "Send reinforcements"; and so on, till all the degrees of a circle have been exhausted, each with a communication expressed by the angle at which that stamp is placed.

Leaving cipher to the practice of those it most concerns, and taking events in their due course, I will now deal with the only actual experience of slavery, as a system, which came under

my own personal observation in Asia Minor. It was at the next village at which we halted that a charming little slave, a child of about twelve years of age, was offered me for four Turkish pounds (£3 12s.), or, what they would infinitely have preferred for her, barter—money in these parts being naturally far less valuable than what it represents. Indeed, in many cases, the women of the villages through which Englishmen had passed had made holes in the coins they had given them, and wore them as adornments for their hair.

This little one, offered me by her parents most beseechingly, was likely to develop into a lovely example of Eastern beauty ;



WILLIAMS FINDS AN "ECHO."

and though it seems paradoxical that those parents who wished to dispose of her should be as fond of her as they seemed, they showed their really unselfish love by wishing that their favourite should find that comfort and happiness which they, in their ignorance, supposed must of necessity belong to wealthier and more civilized states ; though of course filthy lucre *did* play *some* part in the proposed transaction. However, though I might from the purest motives have rescued this fair Circassian (for she was a

Circassian by birth) from a semi-barbarous life, I was proof against the temptation to turn slave-owner, confining myself to making her a present of several silver coins, with which she appeared delighted, while to her fond father I gave an old briar-root pipe—a pipe of consolation, touching that “deal” which never came off.

Whilst in that village, too, I remember how Williams came in one day much excited and delighted with a treasure he had found; one beyond price, though its intrinsic value was, when new, exactly one halfpenny. It was, of all things in the world to be found up country in Anatolia, an *Echo*, “an ‘apenny Hecker,” as the London street boys put it, months and months old, one which had evidently been used for packing purposes by others passing through, and afterwards discarded. It was crumpled up and damp, but intact, affording us a refreshing glimpse of that world we had now so long left behind us; a practical demonstration of the fact that there is no corner of the earth where the power of the British press may not be felt. We knew that paper by heart, old as the news was which it contained, yes, advertisements and all, long before we reached Erzeroum; which, weary, travel-stained, weak and jaded, we succeeded in doing without further experiences of any special interest two days later.

Of course we pulled up at the British Consulate, and had we been his own kith and kin, Consul Zohrab could not have given us a warmer welcome home; if he did not actually kill the fatted calf, it was because there was no fatted calf to kill. Having had a Turkish bath, which of course was our first consideration, the luxury of fresh clothes was a treat never to be forgotten. We very much wished to preserve and bring home our picturesque, many-coloured Eastern costumes, which, lest those we came in contact with should too soon discover us to be Giaours, we had found it necessary to wear as a protection so far throughout the campaign, but unfortunately all the fumigating, washing, and shaking in the world would not exterminate that *little* army of occupation. “Oh, no! we never mention ‘em; their name is never heard.” Yet we were reluctantly reduced to burning them, after all.

That night we dined at the consulate, the first night we had eaten like ordinary human beings for many months. Drs. Casson and Featherstonehaugh—the two medical men sent out by the Stafford House Committee to represent the interest of the Red Cross in Asia Minor—were of the party. Dr. Casson, who was himself suffering from a kind of low fever, and on whom climatic

influences had told terribly, had his professional eye fixed on me from the moment I entered the room, and as soon as opportunity served assured me that I was much worse than I thought I was, and advised me to remain in the old consulate, the quarters we had had before, for at least a week before I continued my journey. This I knew I could not do, but I found three days absolutely necessary, during which he crept in from time to time from his quarters, ill as he was himself, to look after me. He was perfectly right, too; I had not by any means recovered from the effect of the over exertion of that last lap of the journey to Kars, and now erythema having set in more acutely than ever, I suffered agonies. Very soon my feet and legs became swollen to such an enormous size that walking was barely possible. (I have just heard that Dr. Casson has succumbed to fever, in some expedition on the Persian frontier.) I know this, that I can never forget that attendance of his on me, followed by his Turkish servant carrying a small medicine chest, when I was *in extremis*.

On the second night of my stay in Erzeroum, when Williams and I were alone in that dilapidated old consulate, we heard the wildest and most terrifying shrieks proceeding from another apartment in the building, at which, as you may imagine, we were not a little astonished.

"Sheitan! Sheitan!—Devil! Devil! May the curse of the Prophet light on his head, we have eaten the accursed thing. We have eaten it—I tell you. We, the faithful sons of Mahomet, have eaten the Giaour's pig."

This hastily translated to me, accompanied by many shots and much clashing of lethal weapons, was calculated to make me, though I'd scarcely a leg to stand upon, raise myself as best I could and hasten with Williams in the direction of the disturbance down a dark corridor. "Sheitan! Dog of a Giaour!" &c., &c., increased as we advanced.

The next moment, a lantern threw a broad light across a passage which led to a flight of narrow steep steps which communicated with the street below. This passage ran at right angles to the one in which we were. It was more like a scene from the *Arabian Nights*, or an Eastern extravaganza, than anything else I can imagine.

First there rushed past us three hairy Circassians, their many-coloured, long picturesque garbs fluttering in the wind, flourishing their drawn swords in all directions and flying for dear life, shouting as they passed "Sheitan! Sheitan!" at the top of their voices.

They were followed in hot haste by two veritable Turks of the bright baggy trousers and monster turban type which, in our juvenile days, we associated with *Bluebeard* or *Ali Baba and the Forty Thieves*. These, in their excitement, cushioned against the Circassians, yelling as they rushed madly out. "Oh, Mahomet, Mahomet!"

These were in turn followed by yet another, with a lantern slung at his waist, a revolver in one hand and a huge scimitar in the other, who, representing the expelling force, was bent, apparently, on murder.

The velocity with which those three Circassians and two Turks went headlong down that stone staircase was frightful to see; but what was far more terrifying to me in the dim light was (fancying from his costume yet another offending Turk was left) that this redoubtable pasha, returning in breathless haste from his wild



pursuit, now seized the advancing Williams by the throat, when they instantly fell with a heavy thud together to the ground. For a moment they were motionless.

What *could* I do? In my present condition I was not in fighting form; so seizing the opportunity, I sat upon them both as they lay locked in each other's grasp, holding them down with all my might, for as the lantern had gone out I was in the awkward predicament of not knowing which to release. On their getting restive again, I fired several shots from my revolver high in air, which, as I hoped, brought succour and light, when, to my utter amazement, the hero of a hundred fights and Williams, more confused than hurt, were discovered.

I could hardly believe my eyes. Yet, so it was. One glance of recognition, and the tale was told—one crushed, heartbroken look

from the prostrate pasha who, in excellent English, with a slight Hibernian accent, bewailingly cried :

“Oh ! no, no ! I can stand Circassians and Turks *ad infinitum*, but I *can't* stand the *Illustrated News* sitting on the *Daily News*.”

It was quite pathetic. I arose, with that generosity begotten of true magnanimity, and the power of the press no longer held down my old friend Edmund O'Donovan—O'Donovan Pasha of the *Daily News*—through whose oriental garb I could not at first penetrate, and who that evening had been experimentalizing on Moslem punctiliousness by endeavouring to persuade his guests to indulge in some disguised preparation of pork, which he had brought in for their special refection from the Greek quarter of Erzeroum. In a fit of that wild buoyancy peculiar to him, that overflowing of animal spirits to which he was subject, especially when an underlying joke tickled his fickle fancy, he had suddenly elected to test the faith of the worthies we have just seen so ignominiously expelled. His revolver shots had evidently scared them, otherwise they might have made mincemeat of our erratic special.

* * * *

The wretchedness of Erzeroum during the war fever was scarcely eclipsed by that of Kars, and was daily added to by crowds of scared villagers, who might be met out on the rocky plains round about the Deve Boyun pass, hurrying into the comparative security of that city from neighbouring villages. Men, women, and children jostling and disputing with horses, mules, buffaloes, and camels every inch which brought them nearer to the protection its walls afforded, within which the natives in rags and tatters sat about at street corners, starved and wretched, and old mortality spread disease and death broadcast, while to add to the surrounding misery, the lean, hungry-looking, man-eating dogs howled a hideous refrain through the long hours of the night, which seemed a fitting accompaniment to the horrors round about them.

Correspondents at this time were looked on as prophets whose forecasts might be thoroughly relied upon, and to whom the natives came for reliable information about future events, as if those worthies were in direct communication with the stars. Sir Arnold Kemball's movements, too, at one time had a marked effect on the Erzeroum markets, a political point being attributed to all he did, his going in one direction meaning the abandonment of Turkish interests by the British ; in another, the reverse. I verily believe, like a political weathercock, the inhabitants watched



SIR ARNOLD KIMBALL.

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his smallest actions, in order that they might find out, as they thought, which way the wind blew.

I was loth to leave Erzeroum without adding a few sketches of the place to those I was sending off to England by the *tatas*, or mountain muleteer mail-carriers, who, some twelve or fourteen in number, with an escort of native Irregulars, carry letters from place to place.

These finished, I managed to get to Dr. Casson's hospital for further advice before leaving. The hospital was really an old khan of great size, with a stone courtyard, having numerous



entries inwards, afforded admirable opportunity for the disposal of the wounded, while convalescent soldiers could sit about in the enclosure.

It is astonishing with what difficulties those two indefatigable officers of the Red Cross, Casson and Featherstonhaugh, had to contend in performing operations, not only for want of instruments and proper supplies which had not arrived, but from the patients themselves. You would scarcely believe it, but invariably they refused, even when told that their lives depended on it, to submit to the amputation of a limb; and, stranger still, it was no

coward corporeal fear which actuated this determination—no, it was simply this. Just as those who die on the actual battle-field are said by the Koran to go straight to heaven, so also are those who lose an arm or leg supposed to go equally straight to Paradise, though minus that previously amputated limb—hence, “I will never hop into heaven” was the English of the plea they were perpetually setting up in their struggles against the surgeon’s knife.

I remember seeing one very curious case of this kind. Originally it was a bullet-wound in the foot, which by amputation would probably have left the poor sufferer yet long years of life before him, but his religious scruples overcame him till mortification set in. An operation higher up was then found to be the only means of saving him. But no; he still held out. Nothing would persuade him to give way; and when I saw him, so terrible had decomposition become that there was little more than a skeleton leg and foot left, round which putrefying flesh of every hue still clung like stalactites, while the poor fellow shrieked in his agony from this self-inflicted martyrdom as he waited for death.

Curiously illogical it all was, too; for the Houri of the Moslem Paradise could hardly approve so much of a hero with a skeleton leg as one who was minus a foot or an arm. But, after all, there was *much* to be admired in their implicitly blind faith—a faith which would have put to shame many a so-called “Christian” had his profession of belief been put equally to the test.

Now, whilst on the subject of hospitals, I may refer to a very graphic description given by one of the *Daily News* correspondents of Dr. Casson’s field ambulance near Kars.

I had retired to my tent, and sunk into an uneasy slumber. A thundering detonation aroused me; a heavy shell had burst within twenty yards of my tent. I sprang to my feet and rushed out. The white smoke was still curling upwards from the frosty turf, torn into a black circle by the shell. Another projectile whistled over my head, and burst against the rocks beyond. Everyone in the ambulance was astir; we were being deliberately shelled. Dr. Casson, only half-dressed, was having his sick and wounded carried on litters higher up the mountain, out of range of the 16-centimetre projectiles. The young volunteer doctor was prostrate after the reaction of a severe attack of typhoid. I leaped to a horse as the second projectile burst, and never shall I forget that poor feeble young man lying among the bare black rocks in the grey mountain air as I galloped by. If the Russians fired deliberately on the ambulance, it was a piece of atrocity. I can scarce believe it was so.

But enough of the horrors of the hospital and ambulance, though one may never sufficiently dilate on the heroism of those single-minded Englishmen, several of whom fell in the good cause, and *all* of whom honourably sustained the reputation of Britishers at

the front. We, however, were obliged to push forward to that new field for pen and pencil which was now opening out to us in Europe. We all very naturally felt a pang at leaving our kind friends in Erzeroum, who accompanied us far beyond the city limits; and it was with many warm adieux, and hopes expressed on both sides that we might some day meet again in the old country, that we did so. Our next halt would be at the village of Illege; nothing happened for some time worthy of record, unless, indeed, I refer to the way in which, when passing troops, the British Press was here, as elsewhere, often saluted. A sketch found in an old drawer has just reminded me of one of many such receptions, on



all of which occasions I felt infinitely more like a *generalissimo* than—well, than I have ever felt since.

See! yonder are the domes and minarets of the little village where we are to pass the night, this completing the first stage of our return journey towards Trebizond.

If there is a spot on earth where the far-famed Pears would find his advertisements unheeded, it would be, I should say, in the village of Illege, the sulphur springs of which are warranted to purify, without the aid of soap, every good Moslem who may bathe in their bubbling waters. Physical as well as mental pains may thus be equally banished in this paradise, where immunity from every ill, from toothache to taxes, may alike be secured, and body and soul washed white under the mosque-like dome of this temple of health.

Nay, more ; not only is it renowned for its relief of physical and mental ailments, but its waters are actually supposed to renew youth and preserve beauty ; no wonder, then, that when we arrived it was occupied by the wives of a small local pasha. So of course, in common gallantry, we prepared to journey on and leave the curative and beautifying powers of Illege sulphur springs to those fair ones and future travellers.

Before doing so, however, we stopped at a small, grimy khan for a rest, but we had not long been dismounted when we noticed, to the rear of the baths, a long ghost-like troop of women, wending their hurried way, single file, up a neighbouring hill, dressing, it seemed, as they went. We were naturally inquisitive as to the cause of such a commotion, but the reason was soon explained to us by a native, who, whilst we were watching these mysterious ladies, placed himself before us at the khan door, and bowing to the ground commenced a long oration, which, when translated, was literally to the effect that the proprietor of the baths, having turned the matter over in his mind, had ultimately come to the conclusion that three British Pashas were worth considerably more than any number of Turkish women ; and so, without the slightest notice, he had had them unceremoniously turned out, neck and crop—whether they were prepared or not being no concern of his—and now sent to tell us that if we would rid ourselves of bodily ailments and mental anxieties we were at liberty to do so, for the coast was clear.

“Men may come and men may go” in Anatolia, as elsewhere, but it is not often given to any save the pashas themselves to see the ladies of a harem *en déshabille* ; nor was this the only occasion on which our eyes rested on these sirens of the seraglio. More than once we met them hurrying away before the Russian advance, never forgetting, however great their trepidation, that the most gauzy yashmack was the most becoming. Parasols, too, seemed strangely enough to have peculiar attractions for them, the ruling spirit of the harem thus unexpectedly on tour generally securing one of these odd links between the Boulevards of Europe and the remote villages of the Orient ; and of one of these fair ones, surrounded by the impedimenta of her lord and master, I here introduce an illustration taken from a sketch done high up in the mountains of Anatolia.

I must say the sensation of bathing in these waters was unique, their buoyancy, especially if you stood where they bubbled up through the clear pebbly bottom, being most remarkable. There



THE QUEEN OF HIS HEART.

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was no keeping one's feet down against the force with which the jets of hot sulphur rose from below. I do not know that I felt much younger personally after my dip, the pleasures of which had been to a great extent marred by the brusque behaviour of that grimy old proprietor, who had certainly never indulged in his own panacea. Our memory of this old curmudgeon, however, was eclipsed by an amusing experience we had the following evening, when the khan allotted to us in the village in which we found ourselves was so perfectly alive with bugs that the plaster walls looked like an ever-changing madder-brown pattern on a dirty white ground. We had long since learnt to put up with such dis-

comforts in moderation, but on this occasion the enemy were too numerous, so we elected to have a tent pitched on the flat mud roof of the khan rather than sleep within it.

It was while superintending this change of quarters that, followed by an escort, a Turkish major of distinguished appearance rode past us in the footpath below and said something in his own language, to which Williams replied, the gist of it being that the Kaimakam (Local Governor) of the district being absent he, the Major, had possession of his comfortable quarters, which he



asked us to share, at the same time hoping we would dine with him that evening. I need hardly say we were delighted to accept his courtesy, and, repacking our supplies, followed him to a superior-looking building at the end of the village. Here was luxury of which we had never dreamt, a large, apparently clean square room, round which were divan seats, covered with elaborate silk stuffs, and in the centre of which stood several small inlaid octagonal tables, on which black coffee was placed and brought conveniently near to where we sat smoking, cross-legged, our hospitable entertainer's cigarettes. As far as smiles and amiability went, he did the honours of host most

genially. Finding presently that our interpreter Williams was with us, he turned to him and said—

“I hope the Pashas are not hungry. True, I invited them to dine with me, but it was the sight of their supply waggon which suggested the invitation. See ; as far as my poor hospitality goes, I extend it. If the Kaimakam should arrive to-night, he will not be admitted. Rather let him sleep with the village dog than disturb the Pashas whom I have made my guests, so you can rest assured you will be comfortable till morning ; and tell them, too, that if *they* are hungry *I* am absolutely ravenous, and that the sooner they bring in what good things they have the sooner all our appetites will be satisfied.”

It was a peculiarly novel way of requisitioning, which much amused us ; and so, after having seen to the creature comforts of our guards and Johannes, we brought in a goodly supply of eatables, together with a bottle of brandy—for our own special benefit of course—placing them, with this latter exception, in the hands of the Kaimakam’s cook, who, on his part, had nothing to serve up but the eternal youart and pilaffe. Our appetites were well sharpened by the prolonged wait which took place before, in a huge brass bowl, a curious mixture of tinned meats and vegetables was placed steaming before us. Little platters were supplied to each ; but out of deference to our host we had, in approved Asiatic fashion to dip our fingers in turn into that brimming bowl, and fish up “tit-bits” as best we could.

“What is that beautiful golden draught you English pashas drink ?” he said, before we had gone far with our meal.

We explained it was “fire-water,” and that had been our reason for not asking the good Moslem to partake of it.

“Ah, but you are mistaken ; I’m *not* a good Moslem,” said he. “I’m a bad one—very bad—I am, indeed ; and I think I should like to try a little.”

We gave him “a little.” He smacked his lips, with the air of a connoisseur, and was not long in asking for “a little more.” The idea seemed to tickle his fancy immensely.

“We are wrong not to take this,” he went on to say. “It looks beautiful, and tastes more beautiful than it looks. To me, it is suggestive of golden sunset. With it, I may close my eyes and dream I’m at the gates of Paradise ; I will take more and more still.”

But we refused, as he had already drank nearly two stiff glasses ; and to his unaccustomed head it might be dangerous.

He then explained that, unlike most Turks, he was very fond of music; so would we, as a very great and special favour, give him some idea of the music of Europe. We had none of us, I believe, any great vocal powers, but we indulged him to the best of our abilities.

Holmes, in a fine baritone, sang several snatches of Italian and Spanish airs; Williams was drawn out to the extent that he represented Holland by

Mynheer Van Dunk,
Though he never got drunk,
Took his brandy and water daily,

which was more than could be said of the Major, whose unaccustomed doses of that spirit were already beginning to tell painfully upon him.



HIS PORTRAIT.

Then Scotland was, of course, worthily represented by the *Scotsman's* special, who sang "Auld Robin Gray" and "The Lass of Gourie"; and lastly your obedient servant, after singing first "God Save the Queen," terminated this unique concert with popular English nursery rhymes, "Hey diddle diddle, the cat's in the fiddle," "Humpty Dumpty," "Tom, Tom, the Piper's Son," and "Twinkle, Twinkle, Little Star," amusing our united host and guest so much that he repeatedly

endeavoured to catch the airs. Indeed, he threw his whole soul into what he learnt, in a parrot-like way, from Williams.

Laugh? I should think we *did* laugh. The pathetic heroics with which he rendered "Inkle tinkle, ickle tar," merged into one the sublime and the ridiculous. Indeed, I shall not easily forget the extraordinary mixture of "Hic iggle diggle, hic caddle figgle," which, after a prolonged and determined effort to master the mysteries of the English tongue, ended, perhaps, in the soundest sleep that inebriated officer had for many a long day enjoyed.

Having thoroughly rested, and slept soundly ourselves, we

started early next morning, leaving that merry Major still asleep and snoring loudly.

* * * *

Surely the connecting links between instinct and reason are not easy to detect, so at least we argued, when ascending a narrow precipitous highway, in the course of which we came upon a long heavily laden camel train. Ere we arrived, however, a strange commotion had taken place in their midst.

A pretty fluffy little camel, the very image of its mother, to whom for protection it had been tied, had slipped over the rough edge, and hung dangling over the precipice at the other end of the long cord which was attached to its now agonised mother's neck. Over and over again it turned, its frenzied efforts to extricate itself watched the while by its helpless parents above, whose cries were piteous to listen to. At last, after every scheme to regain it had been tried, it was found it must be sacrificed, as there was no possibility of hauling it up; and to witness the agonies of those bereaved parents, when the little thing was cut adrift down to the rocky watercourse hundreds of feet below, was simply terrible. One prolonged wail went up from both simultaneously, and it was only with the greatest effort and gentlest persuasion that the camel drivers were able to get the train in motion again.

Indeed, this seemed a morning peculiarly fraught with interest connected with the animal world, since we had not been another hour on the road before we witnessed a buffalo fight, a very rare occurrence, in which one is always, and both are often, killed. It was a desperate encounter, each having gored the other most frightfully before our arrival, which seemed somehow to give them a renewed incentive for attack; for, weak as they now were, they close in a final death struggle, which, before long ended in one measuring his length amongst the blood-stained brambles which had been the scene of their terrific conflict.

Now the strange expression and peculiarly characteristic features of one of my guards, as he stood there watching that buffalo bull-fight, no doubt laying mental odds on the issue of the conflict, attracted my attention, and having note-book in hand I made a rough jotting of his head. Before I had finished he looked up. His aquiline features were unmistakable; he knew in a moment it was intended for himself. I shall never forget the sudden look of horror and revenge he gave me. For the moment it thrilled me, coming unexpectedly as it did, and, as far as I could see, for no

reason. From that moment the fellow's manner became rapidly sullen and morose, nay more, utterly wretched. If he supposed me



A STORY-TELLER.

possessed of the evil eye, surely he was possessed of the most malignant orbs which ever protruded from a human cranium.

Things went on in this mysterious way till I asked Williams if

he could throw any light on the matter, when he immediately explained that to be reproduced in any way on anything meant, in that superstitious country, impending death.

The whole thing was explained in a moment. Death, of whom I was the agent, had to all intents and purposes set his seal on my unfortunate follower; a condition of affairs truly terrible to contemplate. However, there was no help for it; the thing was done, though his settled gloom affected us all not a little, and no explanation seemed likely to break the spell which he felt hung over him.

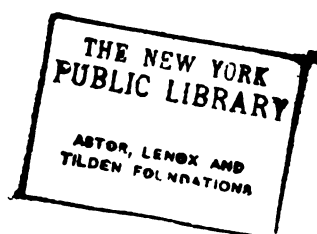
Thus we journeyed on our weary way till we came across what was a sort of shepherd's hut, where, though it looked gloomy and dark, we decided—fearing we might not get quarters of any kind further afield—on remaining. We had not been long seated round our camp fire when a troop of some two hundred Arabs, with camels loaded with supplies of all kinds, came at a swinging pace across the undulating uplands, between us and the now declining sun, till, with noisy clatter, they halted outside the hut of which we had just fortunately taken possession.

A splendid creature is the Arab camp follower, his ebony skin made doubly black by his huge white bernouse. He is not a reliable neighbour in the dark, for all that, although there is a compensating balance in his wonderful capacity for story-telling. Thus one who had won his spurs, a past master in the art, was, after the evening meal, selected on this occasion by general acclaim for the office; and I think I cannot do better than conclude this chapter by asking you to join the small circle of interested "Specials" who have closed round my Levantine factotum, Williams, as he translates to us the Arab's legend of "The Beauty of Bagdad."





ON THE TRACK.



Notings from the Foreign Press.

OUR ARMY FROM A FRENCH POINT OF VIEW.—The *Revue Militaire de l'Etranger* of the 30th August commenced a treatise on the actual condition of the English army, basing its comments on Sir Charles Dilke's writings on the subject. Englishmen, it remarks, are conservative in their modes of thought as regards their military institutions, instancing the *feu-de-joie*, which is performed on the Queen's birthday or other great occasions. This ceremonial, it tells us, has not been observed in the French army for more than two centuries. In 1654, when the Duke of Joyeuse, colonel-general of light cavalry, joined Turenne at the camp of Monchy near Arras, he was saluted with a *feu-de-joie*. Thus our military authorities are urged in diametrical opposite directions: love and reverence for the past impel them to retain features in the military fabric which no longer correspond to modern requirements, while the example set by the great nations of the Continent suggest judicious alterations in its structure. The actual state of the army expresses the result of this conflict of opinions. Since 1870 changes of details have been frequent, but no comprehensive principle has dictated them. In imitation of the Continent we have shortened the term of service, and endeavoured to organise an efficient reserve, but the result has hardly corresponded to anticipations. The period with the colours is still too prolonged to promote the formation of a powerful reserve; but a shorter time would interfere with the due supply of reliefs for India. The uneven results of recruiting operations in the country districts render the territorial system unsuitable in Great Britain. At the present moment, after so many vicissitudes, the army is neither composed of a limited number of seasoned soldiers, nor does it possess a reserve sufficiently powerful to make amends for a lack of the professional element. The Militia and Volunteers are insufficiently trained, and their organization is imperfect. In fine, the compli-

cated machine has all the defects of two essentially different types : it is neither the army of Alexander, nor the Nation in Arms. The Commander-in Chief and the Adjutant-General disagree as to the expediency of conscription, and the nation is equally at variance on the subject. The system which prevails on the Continent will not be acclimatized in England, unless some great disaster compels.

ENGLAND AND THE DECLARATION OF PARIS.—This important subject is treated at length in an excellent article by the *Mittheilungen aus dem Gebiete des Seewesens* ; it seeks to prove that Great Britain should unreservedly adhere to that clause of the Declaration which secures the immunity of hostile goods under a neutral flag. Then, it argues, our trade could not be brought to a standstill in time of war, and our food supplies would be secured by importation in neutral bottoms. In England, the writer asserts, an opinion prevails that, on the outbreak of war, our carrying trade would be transferred from our own to neutral bottoms, and that, further, great efforts would be made to sell British ships abroad, in order to realise the capital thrown out of employment through cessation of commerce. This situation, it is said, would be entirely created by the clause in question, since but for it the ships of neutrals would obtain no exemption for their cargoes. Again, in the event of a war with the United States or Spain, whose Governments have not acceded to the Declaration, *our* hands would be tied as regards the confiscation of hostile goods in neutral ships, while the enemy would be under no such disability. These views are pronounced by our Austrian critic to be fallacious, and the hypothesis is advanced that it must necessarily turn to the advantage of the nation with the greatest commercial wealth if the milder rules which prevail on land should be adopted in maritime warfare.

Sale to a neutral flag is not to be thought of, as most of the maritime powers observe the justifiable custom of refusing to recognize sales which cannot be shown to have been concluded a certain time before the outbreak of war. Thus would be prevented a wholesale, and for the most part fictitious, transfer to the neutral flag. Applying this principle, the neutral flag would not cover the ship, and the neutral State concerned would refuse its protection. It would rather oppose the acquisition of such vessels, in order to avoid unpleasant complications.

A transfer of the carrying trade would, of course, take place on a very extended scale, and the shipping interest in these islands would suffer accordingly. But it would not perish altogether. Freight would fall and insurance would rise ; our ships would pursue routes where they could reckon on the protection of our squadrons, and fast steamers would be chiefly employed in com-

merce. But though the shipowner would suffer, the mercantile interest would be kept alive by the service rendered by the neutral flag, and the masses would not feel disposed to ask questions as to how their needs were supplied if they got what they wanted. Then comes the question of blockade, which, we know, according to the Declaration, must be effective and not formal if it is to be binding. England, writes our critic, cannot be effectively blockaded, and therefore can always be served by the neutral flag. Then we approach the feeble link in the writer's chain of reasoning :

Neutral ships can only be hampered by an effective blockade if they have contraband of war on board, and, as there is no reason to suspect that the notion of contraband will be so extended as to include things which have no connection with military objects, *or only inasmuch as a protracted deprivation of them exercises a moral pressure on the public mind of the enemy*, England will be always accessible to the neutral flag, even if British vessels have altogether been deprived of freedom of action.

This suggests the question, will not corn be considered contraband of war in any future struggle where England, having lost command of the sea, will be in the position of a beleaguered garrison holding a limited supply of provisions ? We have some faint recollection of rice being treated as contraband of war not so very long ago. It would require no greater elasticity of conscience to bar the staple nutriment of other lands besides Madagascar. Again, we read these lines :—

The question as to what is contraband is not yet defined. It is, of course, very difficult to do this, because it depends on the *concrete aspect of affairs and their mutability*. At the present moment every State is allowed to *decide what it chooses to consider as contraband throughout the duration of a war*. Very peculiar things may therefore happen.

We think they might ; and one of those peculiarities in a maritime war with England would be that a successful adversary would lose no time in deciding that the supply of corn directly affected the course of the war, inasmuch as famine would quickly put an end thereto ; nor would any stipulations of thirty years ago affect his resolve. In conclusion, we are told that since 1856 every attempt to extend the privileges of private property at sea has broken down through England's opposition. Nothing, it appears to our censor, will overcome this as long as England believes in the invulnerability of her territory. But if, during a great maritime war, she were to discover her inability at the same time to protect her own shores, guard her colonial communications, and destroy the enemy's commerce, then, indeed, a prospect might arise of gaining her consent to a modification of the existing rules affecting the treatment of private property at sea in war time.

THE BALKAN PENINSULA.—The last number of the *Revue Militaire Belge* contains the first instalment of a long treatise on the condition of the Balkan peninsula, which may be recommended for perusal. The writer leads off with a brief historical retrospect of the barbarian irruptions which explain its ethnical conformation, and which concluded with the Ottoman conquest of Constantinople in 1453. A sketch is given of the rise and fall of the ancient Servian and Bulgarian monarchies, and a description of the characteristics of the motley races, Slav, Rouman, Skipetar, Turkish, and Greek, which inhabit the peninsula. But the bulk of the article, which covers close on one hundred pages, is devoted to the history of Bulgaria since the signature of the Treaty of Berlin; and a more scathing exposure of Russian intrigue could not have been indited by her most rancorous enemy. Proceeding from a Belgian, and therefore presumably impartial, pen, these observations are of more than ordinary interest. The writer opines that the political combinations which are constantly arising in the Balkan peninsula, and especially in Bulgaria, are due, first, to the intrigues of Russia, whose agents at Sophia play a part both disastrous and stupid; and in part to the Treaty of Berlin, which, in defiance of the wishes of the inhabitants and of geographical and ethnical considerations, insisted on dividing Bulgaria. The Constitution of Tirnova, so absurdly ultra-liberal in its terms, “*ce nouveau cheval de Troie*,” as the writer graphically styles it, was imagined by Ignatieff and the Panslavists that the anarchy which it was sure to originate might leave the field open for their intrigues. Prince Alexander had the consent of the late Tzar in suspending its provisions. But on the death of the latter in March 1881 the policy of Russia was reversed by his successor, who, instead of seeking to maintain law and order in Bulgaria, did his best to overturn both. It is hard to believe that in this Alexander III. was actuated by personal pique and hatred; but neither more nor less than this is asserted with confidence by the writer. The “Battenberger,” a favourite with the sire, is a bug-bear to the son. This feeling “had its origin in the aversion which the new Emperor of Russia entertained for everything of German origin, and in the trifling quarrels of boyhood for which the new Tzar entertained a grudge against the Prince of Battenberg. He could not forget his father’s predilection for this foreign cousin, a predilection which irritated him extremely when Alexander II. was alive. This is why, on mounting the throne, he hastened to change the attitude of his Government towards that of

Sophia. It may be objected that our reasons for explaining the radical difference between the feelings of Alexander II. and Alexander III. towards Bulgaria are trifling and mean. We are far from contesting the truth of this asseveration, which is absolutely justified; but in history, as in politics, we must take things as they are, and not as they ought to be; and it is a fact that the Tzar has mixed up his private quarrels, his personal antipathies, and his childish dislikes with his country's policy in the Balkans." With the accession of the new Tzar, therefore, the policy of Russia in the East underwent a sudden reversal. It became an object at the same time to dominate Bulgaria and get rid of an offensive kinsman. *Divide et impera* was the maxim adopted for the furtherance of these views—that is to say, "upset everything south of the Danube, in order to prepare the way for Russian intervention and the exile of Prince Alexander." According to this authority, it was Great Britain who, supported by Austro-Hungary, took the lead in organizing the revolution of Philippopolis as an effective reply to Russia's covert intrigues. We trust that this was so in reality. It would indicate, on the part of British statesmen, a power of checkmating schemes of aggrandisement which would be of happy augury for the future of the Balkan peninsula.

In the *Rivista di Artiglierie e Genio* for July–August, Captain Borgatti, of the Italian Engineers, prolongs his interesting essay on the CASTLE OF ST. ANGELO down to the sack of Rome in 1527. In 1312 the Emperor Henry VII. approached Rome at the head of an army to get himself crowned, but his entrance was opposed by the Guelf faction, in support of which the Pope had called in a Neapolitan army. These, together with the Orsini and their partizans, took refuge in St. Angelo, whence they executed a vigorous sortie in the night, which completely discomfited the Ghibellines. At last the Roman populace, tired of the turmoil and carnage around them, flew to arms and compelled Clement V. to consent to the Emperor's coronation. Amid the endless miseries occasioned by internecine strife and the rivalries of faction which weighed upon the Roman people, in the middle of the fourteenth century a saviour appeared in the person of Rienzi. Proclaimed "tribune of Rome" in 1347, in the following year he defeated the nobles in the battle of San Lorenzo outside the city, but shortly afterwards had to seek refuge in the castle from the insurgent people, who, with characteristic levity and ingratitude, returned to the papal allegiance. Thence, disguised as a friar, he made his escape to Naples, where the celebrated Lewis the Great of Hungary

received him, but driven from this asylum by the ravages of the plague, he sought another with the Emperor Charles IV. at Prague, who delivered him over to Clement VI. This pontiff was about to execute the tribune, but, dying himself, his successor, Innocent VI., found it more convenient to use him as an instrument for the restoration of the temporal power. Rienzi was sent to Rome as "senator," accompanied by Cardinal Albornoz, who occupied St. Angelo with a strong garrison, but the priestly commander looked calmly on from this fortalice while the popular leader was assassinated by the mob. His body was exposed in public for two days and a night, being afterwards burnt with thistles in the forum of Augustus. Upon this the castle passed into the hands of the Roman people, who surrendered its keys to Urban V. as an inducement to return from Avignon. During the great papal schism St. Angelo received a French garrison, who held it in the interests of the anti-Pope; and, during the siege, which the partisans of Urban VI. laid to it, cannon was employed for the first time in Rome. When it capitulated, the populace vented their rage on the structure by razing it to its foundations. The marble slabs which faced the exterior were employed to pave the squares of the city.

The existing edifice was begun by Boniface IX. in 1408, his brother, Andrea Tomacelli, being made castellan. On that Pope's death the castle was besieged by the Malatesta and Orsini, who, having starved the garrison out, handed it over to Pope Innocent VII., whose successors retained possession till the days of the French Republic. Alexander VI. vastly improved the castle's defences, and it was the scene of most of the atrocities perpetrated by him. On his death in 1503 his son, Cæsar Borgia, besieged St. Angelo with 12,000 men, in the hope of compelling the Conclave to elect a successor favourable to his house. Julius II. got possession of Cæsar's person, and imprisoned him in the castle, where he forced him to renounce all title to his territories in the Romagna. Leo X. sought refuge in the same stronghold when threatened by the conspiracy of the Cardinals. Clement VII., desirous of liberating Italy from the yoke of Charles V., had made extensive alliances with the European Powers with this object, but in 1527 an army of mercenaries, under the renegade Constable de Bourbon, swooped down on Rome. Their attack was directed on the Leonine city and the Castle of St. Angelo. The Constable was the first to ascend the walls, but fell, his thigh shattered by a musket ball, and shortly afterwards

expired. Benvenuto Cellini claimed to have fired the fatal shot. When the enemy swarmed into the Leonine city, the Pope was in St. Peter's, but fled to the Castle of St. Angelo at the head of a crowd of cardinals, bishops, and other ecclesiastics. Many of these were precipitated by the crush into the ditch, where they perished. Followed closely by the enemy, Benvenuto Cellini claims to have saved them by discharging some pieces of artillery into the pursuers' ranks. The Prince of Orange was wounded by a shot from the castle, and, distressed by lack of provisions, the Pontiff was at last forced to capitulate. The garrison was composed of 90 Swiss and 400 Italian soldiers, while 3,000 non-combatants had taken refuge within its walls. Among other repairs executed by Clement, he caused a new marble angel to be carved by the sculptor, Raphael di Montelupo, to replace the statue on the summit which had perished when the powder magazine was blown up by a flash of lightning in the pontificate of Alexander VI.

THE MILITARY TRAIN IN RUSSIA.—The *Revue Militaire de l'Etranger* of the 15th August commences a detailed account of the reorganization of the transport service in the Russian army, which has recently been effected, and which will add immensely to its efficiency in any future war, provided that the reforms are substantive and not merely on paper. At the end of the last war with Turkey it was admitted that the transport services had not proved themselves equal to their work, and a commission was in consequence assembled to examine into their organization. The result was promulgated in 1885, when a regimental system of transport was adopted, so that each Russian regiment now forms an independent unit as regards carriage. The regimental train for its sixteen companies consists of—

43	vehicles	with 1 horse,
39	„	with 2 horses,
4	„	with 4 horses.

These are maintained in a constant state of readiness in charge of a captain. Of the 43 single horse carts 33 are assigned to the carriage of ammunition, 16 being attached to the 16 companies, and the remaining 17 acting as a regimental reserve. The remaining 10 are occupied, 6 by the officers' light baggage, 4 by the field surgery. The two-horse waggons are chiefly employed in the transport of regimental baggage, two being told off to each company, the remainder going to the Staff. They contain:—

1. The company's provisions.
2. The company's cooking utensils.

3. The officers' heavy baggage.
4. The second moiety of the officers' tents.
5. Kits of sick orderlies.
6. Cobbling materials.
7. A reaping machine.
8. Spare wheels, &c. &c.

The four-horsed waggons serve for the transport of the sick and wounded. The regimental train, when in proximity to the enemy, proceeds in two echelons. The first consists of 23 vehicles, which include half the ammunition carts, the medical train in its entirety, and finally the officers' light baggage. This echelon marches immediately in rear of the regiment. The second detachment, made up of the remaining 63 vehicles, follows in the general column of regimental trains at a distance from the main body varying from 500 yards to half a day's march. The one-horse carts march two abreast, the others in single file. The first echelon covers 150 paces, the second 580. The whole is in charge of an extra company, the cadre of which is in time of peace represented by fourteen men, but which on service would reach the strength of one captain and 103 men. The war strength is made up from the Reserve. Each regimental train is, in respect of tactics and administration, divided into five sections; the first of which, corresponding to the leading echelon, is commanded by the captain. The second section contains all the ammunition which is not in the first; the third carries the baggage of the 1st and 2nd battalions; the 4th the effects of the 3rd and 4th battalions; while the 5th section takes the regimental baggage. The horses kept on foot in peace number 24; in war their numbers are increased to 158, this complement being obtained by requisition. It will be evident from this brief outline that should this scheme prove effective, the offensive power of the Russian armies will be far more formidable than it has hitherto shown itself.

OLD UNIFORMS OF THE UNITED STATES.—The taste of General Washington in matters of dress was, so we are informed by the *United Service Review*, both fastidious and correct. His buttons, previous to the separation from Great Britain, were specially made for him in England; and they bore his initials stamped in raised letters upon their surface, when destined for the ornamentation of "special and elaborate dress suits." When receiving as head of the State he used to wear, on the authority of the *San Francisco Bulletin*, "a suit of black velvet with a cream-coloured vest. He wore black stockings, had silver buckles on

his shoes and at his knees, a dress-sword at his side, and a cocked hat under his arm." One day when attired in green and blue and wearing a "remarkably high cocked hat," he passed rather too close to a picket of the British rifles, commanded by a Major Ferguson. The Major directed three good marksmen to steal through the wood and get a close shot at him, but afterwards, feeling ashamed, revoked the order. But he was quite unaware that the tall cocked hat covered so clever a head as Washington's, or he might have felt his repugnance modified. For a second or two the history of the world hinged on the susceptibilities of a single individual, perhaps upon the state of his nerves, temper, or health. In 1780 Washington recommended his officers to wear white in their black cockades, in compliment to their French allies. These troops appear to have arrived in America in a highly efficient state; they entered Philadelphia resplendent in their white uniforms faced with green. It has often been remarked how the natives of India mistake the drum-major of a regiment for the colonel, but on this occasion the good folk of Philadelphia seem to have mistaken a running flunkey whom, glorious in "his short, light-bodied coat, his rich waistcoat with a silver fringe, his rose-coloured shoes, his cape adorned with a coat of arms, and his cane with an enormous head," the commanding officers of those days used to keep in their train for the distribution of orders. Here are specimens of the uniforms described. "General Knox's artillery" wore black short coats turned up with red; white wool jacket and breeches, hats trimmed with yellow. For simplicity, however, it is easily outdone by a few others where the panoply of glorious war consists of nothing more elaborate than "dark hunting shirts," "black hunting shirts," or "yellowish hunting shirts."

AN ITALIAN PATRIOT.—The *Rivista Militare Italiana* for August devotes a few pages to the memory of the late Signor Cairoli, a distinguished soldier and statesman, who played so important a part in the unification of Italy. Benedetto Cairoli was born in Pavia in 1825, and was the eldest of five sons, all of whom, except the deceased, perished in action or from wounds received in their country's service. On the outbreak of the insurrection of 1848 he hastened to Milan, and served with such distinction in the ensuing campaign that he received the epaulettes of an officer from King Charles Albert for gallantry in the field. After Novara, unable to acquiesce in the *régime* thereby restored, he resided in Lombardy and was president of a revolutionary committee, but frequently fled for refuge into Piedmont or

Switzerland. In 1859 Garibaldi took the energetic agitator into his confidence, informing him of the projects which were formed for the liberation of Italy by Victor Emmanuel. Cairoli at once, braving every peril, betook himself to Milan in order to assist the movement. In the ensuing campaign he served, with his brothers, Ernest and Henry, in the Alpine chasseurs, another, Lewis, being with the regular army. At Biumo di Varese Ernest was killed. In 1860 Benedetto was captain in Garibaldi's "thousand of Marsala,"



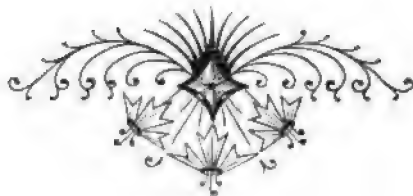
BENEDETTO CAIROLI.

and at Calatafimi was dangerously wounded. At the capture of Palermo, his leg was fractured by the explosion of a shell; while Henry was hit in the forehead, and Lewis soon after died from the hardships of the campaign. In 1866 Cairoli served under Garibaldi as commandant at head-quarters. He took part in the movements which led to Mentana in 1867; in these Henry lost his life, and John died some time afterwards from the privations he then endured. For twenty years previous to his decease, he had

devoted himself to politics, attaining from the very first a commanding position. In 1878 he was elected President in the Chamber of Deputies, and charged by the King with the construction of a ministry. This period of office was brief but memorable, owing to the Congress of Berlin. On the occasion of the attempt on the life of King Humbert in the same year, Cairoli gallantly interposed his person, and received a wound in his thigh from the assassin's knife. He was again at the head of affairs in 1879, but the question of Tunis overthrew him in 1881. In 1887 the King sent him, as a supreme mark of esteem, the order of the *Annunziata*; and on the 8th of last August the old soldier breathed his last in the royal Villa of Capodimonte, near Naples.

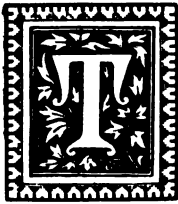
THE FLYING DUTCHMAN.—Our Dutch contemporary *Eigen Haard*, published at Haarlem, thinks that the legend of the "Flying Dutchman" originates in the fact that vessels have from time to time been abandoned by their crews and allowed to disport the ocean at the mercy of winds and waves. In support of this view the case is quoted of the *W. L. White*, a three-masted ship, whose crew left her, sails set and ensign flying, in the latitude of Delaware Bay, on the 13th March 1888; nor did she find rest till ground was touched off one of the Hebrides on the 21st January 1889. It is stated (some imagination must have been called into play here) that in this interval she traversed about 6,000 miles, being hailed and recognized by forty-five different vessels. First she was driven south by north-westerly storms; then she drifted eastward toward Europe along the main track of steam navigation. From May till October she floated about between 44° and 37° north latitude, and 44° and 53° west longitude. During this time her course was influenced by the Gulf and Labrador streams. These wanderings have, it is stated, been accurately traced on a chart by the Hydrographical Department at Washington, the same sheet containing the courses along which three other derelict vessels have been impelled. The *Vincenzo Perrotti* drifted from 18th September 1877 (? 1887) to 2nd January 1889; the *Télémaque* from 13th October 1887 till the 15th October 1888; and the *Petty* from 13th November 1888 till 6th January 1889. *Eigen Haard* can easily conceive how the apparition of a great ship under full sail, with colours flying, driving before a spanking breeze in mid-ocean, and maintaining an unswerving course in defiance of international courtesy and rules of navigation, must have disagreeably affected the imagination of many in the superstitious past.

The *Progrès Militaire* was immensely edified by the farce lately enacted by our cruisers, who made believe to exact enormous sums from various commercial ports. But what seems to have most tickled the French military organ was the Mayor of Aberdeen's refusal to pay ransom, and calling out the Volunteers *pro aris et focis*. "Ne dirait on c'est arrivé," it exclaims. "La municipalité d'Aberdeen refusant de faire même le geste de sortir de l'argent de sa poche! C'est bien Anglais!" meaning, we presume, "Ecossais"; but these subtle distinctions escape our witty neighbours across the Channel, who, while quite naturally firm advocates of the self-dismemberment of *perfid Albion*, almost invariably speak of England instead of Great Britain, thus ignoring the existence of at least one of the oppressed nationalities within the four seas. Seriously speaking, however, a dread of reprisals would, in all likelihood, suffice to prevent these semi-piratical operations in actual warfare. It would be clearly seen that "two can play at that game," and to the disadvantage of the weaker party, who will consequently avoid beginning it.



The Naval Manœuvres.

By REAR-ADMIRAL P. H. COLOMB, R.N.



THE naval manœuvres which began with the promulgation of the declaration of war at 6 A.M. on the 15th of August, and ended with the peace of the 29th, have already been viewed in every possible aspect. The full results cannot be known until the whole of the facts of every sort have been collected and collated at the Admiralty, but yet we have enough before us to offer some possibly useful observations upon. The points of view seem to gather themselves into four principal ones, which may be stated as: (1) Exercise for officers and men; (2) tests of ships and their powers; (3) tactical results; (4) strategical results. I might, perhaps, add a fifth head and say, proofs of fitness and proper organization of the navy for war, but I think this head, so far as organization is concerned, comes better under mobilization, of which it is a development, and that I have already sufficiently noticed. The fitness of the ships too, for the purposes of war, must call for notice under the three latter heads mentioned above.

It should seem that as an exercise for officers and men, this year's manœuvres must have surpassed in efficiency anything that has ever been done before in peace time. The admirals have had the advantage of practice in the handling of considerable naval forces, both strategically and tactically, and their hands and minds cannot fail to have been strengthened by their experience. Brought face to face with problems which, at any rate, have the supreme advantages of novelty and reality as far as the data goes, no one of the four commanders, and no one of the four umpires can have avoided the storage of much useful knowledge. All sorts of questions of relative force, time, and space, questions which are the essence of war, must have been placed before these officers in

a way that nothing short of such manœuvres could have placed them. They have seen, too, how far they have succeeded in imbuing the minds of their captains with a clear knowledge of their own conceptions, whether by word of mouth, by writing, or by signal; and any signs of failure they may have observed, and they are sure to have observed some such, will act in future as beacons to warn them off all ambiguities of expression, and from all excessive trust in apparent full comprehension.

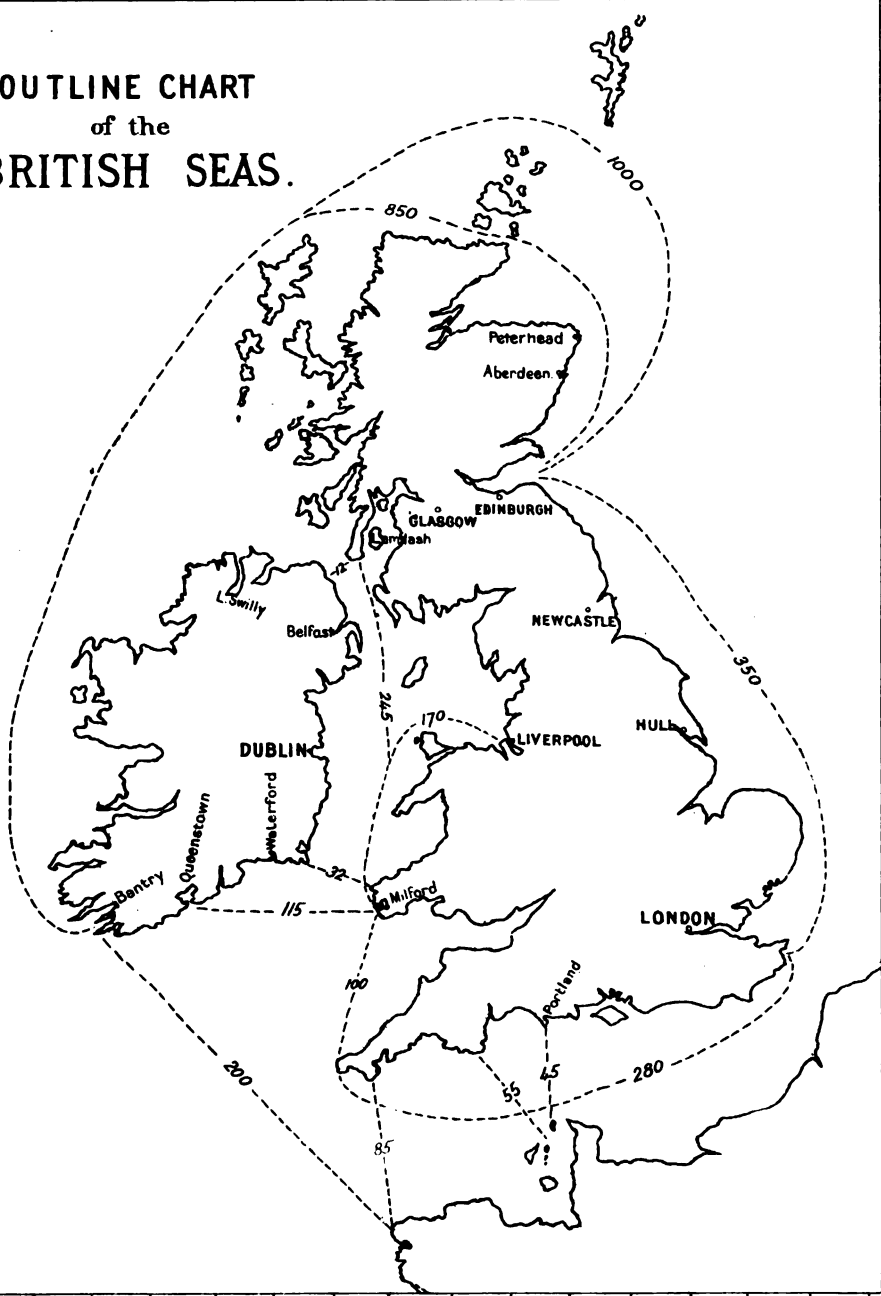
For every captain there has been a trial of his control over the material and personal which he commands, such as he could hardly have got in any other way in peace time; and there has been some knowledge of what men will do, and omit to do, under stress of excitement. For there has clearly been very wholesome excitement and enthusiasm everywhere, and the excited and unexcited man are two very different persons. No doubt, so far as the other officers are concerned, the chief part of the experience has fallen to the officers of the watches, the signal officers, and the engineer officers.

For the others, perhaps, it may be said that they have had all the fun where there was fun, and all the discomfort where there was discomfort, without any of that real strain which has made the experience of the other officers enumerated.

The officers of the watches, especially at night, must in many cases have shared with their captains a tremendously real responsibility. The ships, unlike those on the other side of the Channel, in their manœuvres, have generally navigated without the anti-collision lights required by law to be carried. All must have been well aware of the responsibility annexed to such a proceeding, though from my point of view I think the actual risks are much less than might be supposed if people are well instructed. But undoubtedly redoubled vigilance has been in every such case necessary, and must have been exercised. That alone is an experience of the highest value to every officer under its influence.

Every one of these annual exercises has brought the signal question most to the front. The officers superintending that branch of war necessity must have felt how greatly it is capable of improvement, and how our cry on this head must be the same as the French, namely, "accelerate and simplify." These signal officers must have learnt that it is the distant signal that requires looking after. Anyone can arrange a perfect signal system to carry a couple of miles; but it must have been felt that signalling for a couple of miles is a matter of decreasing moment, as speed

OUTLINE CHART of the BRITISH SEAS.



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through the water increases. But the ten-mile or the twenty-mile signal has the real importance, inasmuch as it then becomes a real saver of time. As scarcely anything has been done of late years to accelerate the speed of a message by signal, and at the same time to extend its range, the efforts of the signal officers must have been unceasing in attempts to do the best that could be done with present arrangements.

Their practice too must have been great in detecting the look of very distant ships. Where it was everything to know a friend from a foe the instant her mastheads appeared above the horizon, keenness of sight, and keenness of comparative observation must have been cultivated in the highest degree.

The engineer officers of all ranks have had the stuff which was in them called out in the highest qualities. The sudden emergency which has demanded the highest speed at the smallest notice, in the chase or in the attempt to escape, has made many an engineer officer proud to know that there was good fibre in him when it was called on; and great experience of what an engine and boiler-room will be like in war time has been gained. For the general crews, the signal-men and the stokers have unquestionably had most of the exercise, but there has been considerable reality in the sudden calls to quarters, and the continued state of expectant preparation which has existed for the fortnight. Altogether the impression I have formed from reading the different accounts is that there has been a splendid exercise for everyone concerned afloat, with which the Admiralty may well be satisfied, and for which the country and the navy may well be grateful to those who arranged it all.

Most of those who have remarked in the press on the tests of the ships and their powers, seem to consider that the tests have been very great, but that many of the ships have responded imperfectly to them. The general impression I have myself is that things have been very much as we ought to have expected. It is unquestionably difficult to form just conceptions as to how the ships have really behaved, when we have before us only data so partial and disjointed as the correspondents' reports. But many of these came from men whose remarks make it clear that they are very competent to form a judgment. I think a good many naval officers of sound sense have been afloat this year, and that even from the correspondents' letters alone, we could, if time were allowed, get a good notion of the relative behaviour of the ships.

There is of necessity general disappointment that sea-speed falls

very far short of measured-mile speed. I can sympathize with the disappointment without feeling it, for I have long believed that, as a standard, the measured-mile trial must be preserved, and that, even though there are no hopes of making sea-speed and measured-mile speed commensurate, the measured-mile speed must still stand recorded as the speed of the ship. We must still call the *Aurora* class $18\frac{1}{2}$ -knot ships, however well we know that we cannot calculate on more than $16\frac{1}{2}$ in ordinary sea work. But I own to a prejudice against forced draught. In an odd sort of way it is always coupled in my mind with a prejudice against magazine rifles, that is rifles of which the magazine takes a long time to load; it is therefore—so far as it is a magazine weapon—an emergency instrument. I look on the forced draught in the same way as an emergency instrument, and as I always think that the magazine of the rifle will be found empty when the emergency arises, so I always think that the application of forced draught will in some way, from its unexpectedness, rarity, and strain, moral and physical, generally bring the speed to grief just at the moment when it is most wanted.

But, on the other hand, I fancy all engineers are now of opinion that natural draught and the clumsy and ineffectual ventilation and cowl should utterly disappear. For myself, I should like to see artificial draught at definite and moderate pressure, which could not be raised so as to injure the tubes, established in all war-ships, and that the measured-mile trials should conform to the standard pressure. The nominal speed of the newer ships would be lowered no doubt, and the record against them in Lord Brassey's *Annual* would be in smaller figures, but there would be less discrepancy between the speed for four or five minutes, and the speed for four or five days, than that which now obtains.

The old discovery has been re-discovered, and it has been found that, especially in the newer ships, the supply of coal to the furnaces grows worse and worse as time goes on, and it has to be drawn from greater distances, and through more tortuous passages. The remedy must be excessively difficult to find, or it would long ago have been found, for it is inconceivable that the difficulty should have been absent for a moment from the thought of any designer who was an honest one. My own thought has been that mechanism might well be employed in the transfer of coal from the bunker to the stokehold.

There has been of late a curious controversy as to whether or no the low freeboard forward, of the turret and barbette ships, is a

disadvantage in steaming against a head sea. It came as a surprise to many that leading officers were of opinion that the low freeboard was a distinct advantage in facing a sea. It was Sir Geoffrey Hornby, I think, who mentioned a comparative experiment between the *Devastation* and the *Agincourt*, or one of the larger of the early ironclads, in steaming against a head sea, which resulted decidedly in favour of the low freeboard. In the different reports of correspondents, I have not noticed any statements that the low freeboard forward has turned out an inconvenience, except as to leakage below, during the manœuvres, either in chase or in flight, and we must suppose that average weather has generally prevailed. Unquestionably, I suppose, the pitching and scending of the low freeboard ship must be less than in the high one, as the lifting power of the sea is checked as soon as it begins to break on the deck. It will be a remarkable result if it is found, on comparing the reports, that there should be a consensus of opinion in favour of the low freeboard, and if it is found to be so, there will be a hardening of the type of battleships to which we in England stand committed.

As there have been several encounters in the open sea between groups of battle-ships and cruisers, tactical lessons must have been offered, and tactical judgments formed, of the highest value. What strikes me most forcibly is the blow that has, so far, been given to the idea of the tactics of the "equally willing." I do not mean to say that if the history of naval warfare had led one to put much faith in such tactics, the mere experiments under hard and fast rules ought to have any effect in weakening it. But when the tactics of the "unequally willing" have been so universal in the battles of the past, that the combat between the *Shannon* and *Chesapeake* stands out as a remarkable instance on the other side, we should not lightly put aside the confirmatory tendency of the experimental examples.

We have to recollect that, under the rules, superiority of force to have made its mark must have been pronounced. Two battle-ships against two battle-ships, or six against six, was of no account in the game. The fundamental tactical rule ran thus: "If two ironclads, or one ironclad and one protected vessel, can succeed in getting within a distance of not more than 8,000 yards from a single ironclad, and be able to maintain such position for two hours, then the single ironclad is to be considered to have been put out of action." Definite limits of force, time, and distance, were an absolute necessity in order to decide which way victory should lie; but perhaps such a rule as this was not, so far, an inapt

illustration of what might be expected in war. After all is said and done, the most powerful generally wins, and neither muscles, nor nerves, nor machinery, nor weapons, will hold out for an indefinite time. Three hours is fair representative time considering what periods have elapsed in former ages before victory declared itself. But another rule, of absolute necessity in these peace manœuvres, is entirely against our permitting ourselves to lay too great stress on the practical results. It is that one which enjoins that ships engaged should not approach within 1,000 yards of one another. It is hardly to be doubted that the ship which is getting the worst of it from artillery fire, will, if under the command of a brave and determined man, take a desperate opportunity of retrieving her fortunes at close quarters, and either by the ram or the torpedo. But it is not to be supposed that desperate ventures of this sort will be more frequent than they used to be, as men remain men till the end of time. The co-relative act of daring by the man who was getting the worst of it, in days gone by, was boarding. But it was the last struggle by which the loser could hope to retrieve his fortunes, and we may remember that we had a recent example of it when the unfortunate captain of the *Covadonga* sought desperately to carry the *Huascar* in this way. But only a minority of men have this desperate valour in them; the rule of war has been that men getting beaten by artillery have ultimately accepted their beating without any display of desperation; and this again reminds us that the minimum distance of 1,000 yards, may, after all, represent that within which numbers of naval actions may be fought.

These things being said, we may note that most of the experimental fighting in these manœuvres was carried on in the form known to our forefathers as "a general chase." The model was Hawke at Quiberon Bay, where there was no question at all as to unequal willingness. The fights were in the form to which, for my own convenience, I have given the name of "leading and following." I have been led for a long time past to suppose that in future naval wars, there will be much more of this kind of thing than of the mutual advance which has been the common ideal on which our notions have been formed. I recollect Admiral Popoff telling me that this view was largely held in the Russian navy, and in the higher branches of it. The holding of such views has for many years caused me to lift such voice as I have against ships of the *Hero* class, ships, as I understand them, which are tactical contradictions. Inferior battle-ships unpre-

pared to fight in the face of superior force. According to the correspondent of the *Daily Telegraph* in the *Howe*, the *Hero* not only suffered from the presence of the superior force, but suffered specially in being compelled to assume a position which masked her own guns. The capture of the *Hero*, in fact, was just that of the *Huascar* by the *Almirante Cochrane* and the *Blanco Encalada*. Neither inferior ship could, from the nature of the case, put out her full strength, and the only act of the *Huascar* differing from those of the *Hero* was her single turn and abortive attempt to ram one of her antagonists.

I judge from the accounts that both in the battle of Ushant, and in that off Scarborough, officers engaged must have been very much enlightened as to the powers skilful men may have in steam actions of this kind, in bringing superior fire to bear while escaping from it themselves, by masking that of the enemy. That is to say, remarks of correspondents show that in the straits to which a flying squadron is put, there must be great difficulty in maintaining such a formation as will present its strongest side to the enemy. The chasing squadron, conscious of power, and determined only to do the best, may so arrange itself as to throw some of the ships chased out of action for fear of injuring their friends. The *Howe*, in the chase of the *Hero*, seems thus to have been able to mask the fire of the *Camperdown*.

But all these most interesting questions seem to me to be subsidiary to that which has certainly been put forward by the Admiralty as the main question—the strategical aspect of the manœuvres. The paper issued at first confidentially by their Lordships to the officers concerned, and afterwards made public, states that, “The manœuvres carried out in 1887 were for the purpose of obtaining information as to the best means to adopt for the protection of British interests in home waters when the British fleet assumed a defensive attitude, and the sea-going force of the enemy was nearly equal to our own.”

That “The manœuvres of 1888 were for the purpose of obtaining information as to the probable result of attempting to blockade the fleet of a strong maritime power in its own ports by a British fleet of rather superior power.”

And that, as it was “very desirable to obtain information on the subject, it was proposed that the question for 1889 should be the protection which could be afforded to British interests in home waters when the British fleet adopts the policy of endeavouring to mask the fleet of the enemy from a suitable strategical base or

bases, keeping a vigilant watch over the vicinity of the enemy's ports in which their forces are assembled by means of fast scouts and cruisers; and on receiving intelligence that the enemy's fleet, or any portion of it, had put to sea, instantly to detach a superior force to pursue and bring the enemy to action."

I think it is necessary to say a word as to last year's attempts to blockade. I cannot suppose that any close student of these questions can aver that the experiments of last year really dealt with blockade in the abstract. It was certain almost that, with the nature of the forces at their disposal, Baird and Rowley would not have attempted of their own notion in war time that which they did attempt for the purpose of the experiment in peace time. It was pretty well established in general opinion before the manœuvres began, that a close blockade by battle-ships was out of the question, in view of the action of torpedo-boats operating from the shelter of the enemy's ports. It was understood that blockade, which was not an attempt to prevent the exit of the battle-fleet of the enemy, but to secure its being fought if it put to sea, could only be carried out by a sufficient supply of ships of the *Rattlesnake* and *Grasshopper* classes acting close in to the mouths of the enemy's ports at night. The essentials of these ships were such a numerous though light armament as to be a real terror to the torpedo-boat proper, and so small a draught of water as to be in some degree protected from torpedo attack themselves. How near the blockading battle-fleet might be had to do as much with geographical considerations as with others, but it was certain that the battle-fleet ought not to be within range of the enemy's torpedo-boat attack.

But the division of the forces in 1888 was such as to put out of question the modern theory of blockade. The battle-ships of Baird and Rowley, and their heavy cruisers, were forced to do the work of "observation," for which no one would have chosen them naturally, and the sort of failure which attended this proceeding was discounted beforehand by most of those who had given attention to the subject.

What we ought to say, therefore, of the manœuvres of 1888, is not that they were an experiment to try the issues of blockade, but a trial as to whether the old methods of blockade could be made efficient with modern ships. Viewed in this light, the demonstration was most useful.

So in the manœuvres of this year we must not be too hasty in

supposing that the theoretical objects proposed by the Admiralty have been exactly those which we have actually dealt with.

To mask an enemy from a more distant strategical base, or to blockade him according to the modern theory just set forth, appear to differ more in degree than in kind. They both involve, or ought to involve, keeping touch with the enemy, not only while he is in port, but after he leaves port. And whatever ultimate steps might be taken, I have no doubt that in real war, we, as the superior force, would use the most strenuous efforts to get full touch with the enemy by means of our scouts before the war was declared.

But in our manœuvres, Sir George Tryon, as representing the superior force, was denied this advantage. The war came upon him like a thunder-clap at 6 A.M. on the 15th of August, and while he was putting to sea from Milford, Admiral Baird was securing himself from observation by putting to sea from Bantry and Queenstown for an unknown rendezvous.

I have not been able to make out at what time Sir George Tryon got this news, but it is remarkable, and will no doubt be the subject of explanation, that the whole theory of the manœuvres fell to pieces on the first day. The idea was that Sir George Tryon should keep "a vigilant watch over the vicinity of the enemy's ports in which their forces were assembled, by means of fast scouts and cruisers; and on receiving intelligence that the enemy's fleet had put to sea" should "instantly detach a superior force to pursue and bring the enemy to action." Presumably Admiral Baird was hidden at sea in such a way as to make it hopeless for Sir George Tryon to think of getting hold of him, and that he was forced back into the defensive attitude of the defending force in the 1887 manœuvres, against the intention of the authorities who prepared the paper quoted.

Thus we have had not a new problem to consider in 1889, but the old one of 1887, under somewhat different conditions.

These different conditions were (1) that the defending force was distinctly superior; and (2) that at Lamlash Bay, at Plymouth, in the Downs, at Hull, and at Leith there were defensive forces of a certain character. They could not properly be called a reserve, because with the exception of the *Inconstant*, *Volage*, *Ruby*, *Raccoon*, *Tartar*, *Active* and *Medusa* the defence squadrons contained no sea-going ships. The rest, though some were nominally sea-going, were so highly deficient in locomotive power, whether in speed or in coal endurance, that they were practically fixtures, limited to certain very small areas of action. Probably the real defensive

force of the *Gorgon*, *Cyclops*, *Hecate*, *Prince Albert*, *Glatton* and *Hydra* is greater than that theoretically assigned to them. They were placed below the belted cruisers; but seeing that the crews of the heavy guns of these coast defence vessels are all protected against most of the missiles which the belted cruisers throw, while none of the guns' crews of the belted cruisers are protected at all except against the very lightest missiles, it seems difficult to suppose that such cruisers could attack the armoured ships with much hopes of success by means of artillery. By the hypothesis, however, these localized squadrons were unable to offer substantial resistance to anything but the operations of light raiding cruisers, and we see their consequences in the fact that Baird's attacks on merchant shipping were confined to the old principal lines, the Cape Clear-Finisterre, and the Cape Clear-Ushant lines.

The rules for the manœuvres had, however, made attempted attacks on coast towns and ports almost imperative on Admiral Baird. Last year it was assumed that if the enemy could lie off a port with any force, small or great, for ten hours without interruption from the defending force, the port fell, and a point was scored even though the defending force might put in an appearance directly after. This year the encouragement to that kind of attack was still greater, as, according to the rules of the game, a port fell to any force of the enemy if he could lie within five miles of it for eight hours undisturbed.

Although I think it may have been necessary for the purposes of the manœuvres that some such encouragement to the attacking force should be given, I own I have looked with something of dismay at the tone which this rule has given to public thought. Here and there this year's manœuvres have had a better effect than those of last year, because it has been seen how tremendous are the risks which the attacking force must run, and some few have seen that in war an attack cannot be made unless the chances of success and failure are, at least, pretty even. But, on the other hand, most commentators have taken it as seriously true that the advantages of lying five miles off an undefended port for eight hours are so great that it will in future wars justify the enemy in risking his finest ships, perhaps half his navy, to achieve it.

Looked at, however, in the light of experience, it would have been wild recklessness in an admiral in Baird's place in real war to have attempted any attack in force on any part of the coasts of Great Britain. We have seen at what an enormous cost—no less than four-ninths of his whole battle-fleet—Baird secured the bom-

bardment of Aberdeen, Peterhead, and Leith for eight hours ; would it be possible to do really substantial mischief to any port in eight hours ? Supposing it were possible, would any admiral be justified in risking half his force to accomplish the task ? These are the profound questions which are of lasting influence as arising out of the manœuvres. On the answers hang the establishment of true rules for the defence of these islands.

Let us glance, as fully as the limited space will allow, at the strategical position occupied by the attacking and defending force. For this purpose, the chart will be found a material aid.

The attacking force occupies some position to the south-west which is unknown to the defending force ; this latter occupies positions equally unknown to the attacking force. All that is really known is that the attacking force must expect to meet at any moment a force 88 per cent. greater than his own. Whatever the attacking force does, therefore, must be by way of stratagem or evasion—stratagem which will lead the defending commander to separate his force in such a way as will enable the attacking force to fall upon a part of it before support can arrive. Stratagem of this kind was not employed, however, in the manœuvres ; the defending force can always meet it by declining to separate too far. We may, therefore, leave this part of the question in abeyance.

The defending force started in the war at Milford Haven. The attacking force, operating from the vicinity of Bantry, and intending to work by means of evasion, may be seen to have had a somewhat limited choice. Its commander had good reason to believe that special look-out would be kept upon certain defensive lines. These were the Lizard-Ushant, 85 miles long, and supplemented, in all probability, by two inner lines, the Start-Casquettes, 55 miles long, and the Portland-Casquettes, 45 miles long. Then there was the Milford-Land's-End line, 100 miles long, which, however, opened the Bristol Channel only ; the Bishop and Clerks-Tuskar line, only 32 miles long ; and the Cantire-Fair-Head line, only 12 miles long.

If the attack was to be delivered from the southward and westward, it must cross one of these lines, and it must either cross them without being seen, or it must force its way through with a reasonable certainty of such a start as would enable it to accomplish the destruction of the port aimed at, and escape into the hidden waters of the North Sea before the superior force, known to exist, could be brought to bear upon it.

If the attacking commander should shrink from the difficulties

attendant on these southern attacks, it was open to him to pass round by the North of Scotland, where passage is offered either through the Pentland Firth, or between the Orkneys and Shetland Islands, or even north of the Shetland Islands. Here it was certain there could be no force to offer resistance in the passage round; whether there might be look-out ships, rendering evasion difficult, was another question. Supposing the port of Leith to be the objective, it was possible that by a route 1,000 miles long, south of Shetland, or by a route still longer north of Shetland, to come upon the place without warning earlier than, perhaps, an hour before the bombardment began. Obviously, if it was certain that the main body of the defending force was watching the English and Irish Channels, the danger to the force attacking Leith consisted in the amount of warning the southern fleet might receive, and the consequently limited time which might be allowed between the opening of the bombardment and the arrival, *viâ* the Straits of Dover, of the superior defending force.

Of course, if we are to guide ourselves by what naval commanders have done in the past, the whole of these considerations are the veriest moonshine, for no naval officer, knowing himself to be inferior, has ever made, or perhaps considered, attacks such as are here supposed. Raids by very inferior forces, agile, and not costly, have undoubtedly appeared from time to time, but these can be met by light defences, and are not now under consideration. This separation of single battle-ships and of small groups of battle-ships, which seems in peace experiment to be so much a matter of course, for the attack of ports is also, I believe, wholly foreign to naval war as hitherto practised, even for the superior force. But as the notion of such things has been at the root of all the operations this year and last, I am bound to suppose them probabilities even though the mere conception of them may shock my sense of truth.

Let us now regard the position of the defending force. This year it had at its back a reality which is of the essence of the defence of these islands. All through the manœuvres, night and day, without pause or intermission, a stream of intelligence was pouring into a room at the Admiralty in the form of telegrams from every part of the coast of Great Britain. In that room remained always part of the naval intelligence staff, classifying and sifting the telegrams, and instantly despatching to the Commander of the defending force all information which it behoved him to possess. He had but to arrange from time to time the

telegraphic terminus from which messages sent by the Admiralty could soonest reach him, and to limit his distance in time from this terminus, to make sure of knowing, within a certain definite limit of time, what ships of the enemy were sighted from any part of the coast. It was within his power, therefore, to make sure that in case of an attack against any port being developed, it should not be continued uninterfered with beyond a certain time.

This was supposing the enemy were able to slip through the southern watched-lines unobserved, or to pass round to the northward. These lines, however, might be watched in force, or not in force. And I think it most important to remember this. The collection of intelligence does not want force. Speed without force is all that is necessary. And when doubt is thrown on the security of these islands when defended by sea-going naval force alone, I think it is quite forgotten that all these lines which Sir George Tryon had to watch with his war ships could have been equally well watched by hired merchant steamers.

Not only could the southern lines be thus inexpensively guarded, but a line of look-out steamers running N.W. from the Butt of Lewis, cruising between the Orkneys and Shetlands, and running north of the latter, would frustrate all attempts of the enemy to take any of our north-eastern ports unawares. Even as it was, Sir George Tryon had not so difficult a task. The Cantire-Fair-Head line was fully watched by the Lamlash force, and even considerably guarded by it. The Milford-Land's-End line clearly did not require watching, as to cross it was to pass into a trap from which there was no exit. The thirty-two mile Bishop and Clerks-Tuskar line could really be easily watched by half a dozen torpedo-boats. I suppose that Sir George Tryon's dispatch of his four heaviest cruisers, which, so far as I gather, were employed in scouring over a wide area, about the entrance to the Irish Sea, was considered by him as a guarantee against any unwatched approach of the enemy in this direction. There remained therefore the eighty-five mile Lizard-Ushant line. This line was already supplemented by the force of two cruisers, a coast defence armoured ship, and six torpedo-boats under the orders of the Commander-in-Chief at Plymouth, and competent to watch the fifty-five mile Start-Casquettes line. Then Tryon had, if he chose so to use them, his twelve battle-ships, and eleven cruisers all along the eighty-five mile Lizard-Ushant line. As it was he seems to have discarded the *Rupert*, and to have left her as somewhat more or less useless lumber at Milford. We may reasonably trust that if these man-

cœuvres have done nothing else they will have prevented us from running any more on the shoals of building ships of supposed special character which are not sea-going. The whole list of these coast defence and semi-seagoing armoured ships are of the date of the *Devastation* and *Thunderer*. How did we come to build ships that cannot be used even in mimic warfare, when for the same money we might have had two or three efficient battle-ships? The answer is easy enough. We used to look at our ships by themselves, and we never until recently viewed them strategically, tactically, or geographically, the three views under which alone can we secure ourselves against going wrong.

But Sir George Tryon, with 11 battle-ships and 11 cruisers, was in a position, were he so disposed, to run a line of ships from the Lizard to Ushant, which would be only a little over four miles apart from each other. What hope could the enemy have of either evading or forcing such a chain? Naturally, the battle-ships would have been drawn together and the cruisers extended. The enemy, of course, could pass through such a line if light and atmosphere favoured, but even a single ship could hardly pass unobserved. Observation would have been fatal, for the enemy would simply have been chased up channel and clear of the coast, even if no worse happened to him. As it turned out, even although a much less numerous force was employed to guard and watch the line, the enemy's attempt to pass was such a failure that more than half the force employed fell into the hands of the defenders.

To me this mimic episode is an element in the peace of Europe. I cannot suppose that it can be without warning to any combiners who might dream of rivalry with the power that commands the sea.

Sir George Tryon made Falmouth his base, and the Lizard, to a great extent, his point of signal-communication with the shore. I have noticed some commentaries averring that he thus left, at least, the Mersey and the Clyde open.

Looked at as real war, such a conception seems to me absurd. We are asked to believe that a force knowing itself to be utterly inferior to a force south of Milford, will enter the Irish Sea either *viâ* the north or south entrance in the hope of demolishing Glasgow or Greenock or Liverpool, and getting out of that sea again unharmed. What sort of chance has it of doing aught of the kind? It can scarcely hope to pass into the sea unobserved even before it reaches either of the crossing lines. Its very best chance is the attack on Greenock *viâ* the Cantire entrance, but then it has

seventy-five miles to go and seventy-five miles to return. Put the speed at 12 knots on both sides, and what does this mean? The defending force will have news of the entry six hours before the attacking force reaches Greenock. Put the defending force off the Lizard, and it is 360 miles, or thirty hours, from the Mull of Cantire; it will be but twenty-four hours off when the attacking squadron gets to Greenock. That is to say, that supposing everything goes well, the attacking squadron will have eighteen hours to operate in the Clyde, provided it is ready to fight the superior force before it leaves the Irish Sea afterwards! Why, looking at the chances of weather and of daylight, such an attacking force could hardly hope for the hypothetical eight hours! But if the Clyde is thus hopeless, Liverpool is still more so. It is 150 miles from the Mull of Cantire, and it is but 100 miles more distant from the Lizard. The margin of time for the attacking force, even if it accepts certain destruction to follow before it has left the Mersey, is but a little over the hypothetical eight hours!

Even as to the game, then, Sir George Tryon was moderately safe as to the Clyde and the Mersey—moderately certain that any attempt on these ports would be paid for by the loss of the whole force attempting. Was it to be supposed that the enemy would risk the destruction of his fleet and the cessation of the naval war for the sake of eight hours' shelling?

Undoubtedly, therefore, the only real opening for Admiral Baird, or for any south-western attacking force, bent, in spite of all warning, on the attack upon a port, was to pass round on the 1,000-mile route to attack Leith.

The hypothesis here would be the hope of not being seen at all until Leith itself was sighted, while the defending force was assembled off the Lizard. At 12 knots it was then, perhaps, fifty-two hours off, and the escape into the North Sea was open and without any narrow passages where interception might be achieved. With all the risks of early observation certain in actual war, it is to me incomprehensible to suppose an enemy courting them. I cannot but insist that while the risk on the defended side is but a certain amount of damage, the risk on the attacking side is the close of the naval war.

Admiral Baird had but seven battle-ships when he sent the detachment to the North; that detachment, looking at its composition, was half his navy. Is there much reality in an enemy risking half a navy for an attack which, even if it succeeded, would be certain to be followed by twenty times the damage in-

flicted, by way of reprisal, at the hands of the superior naval force which cannot be interrupted because it is superior?

Perhaps no part of any of the three years' manœuvres was more instructive than their close this year.

On the morning of the 24th August the Admiralty knew of the attack on Peterhead and Aberdeen by the *Anson* and *Collingwood*. Sir George Tryon was then at sea, but he got the news at Falmouth in the evening, and instantly despatched the *Rodney* (flag of Rear-Admiral Tracey), *Howe*, *Undaunted*, and *Narcissus* for the Downs and the East Coast.

Tracey anchored in the Downs at 2 o'clock in the afternoon of the 25th, where he heard that the enemy were off Leith. Four hours afterwards he proceeded North, and was off the Humber at 9.30 A.M. on the 26th, and about noon had intelligence from the Admiralty that the *Inflexible*, an enemy's battle-ship, had passed the Pentland Firth, probably with a belted cruiser, and that the enemy was therefore stronger than he was. He fell back to Aldborough for the reinforcements which were sure to follow him from the knowledge the Admiralty had of the situation. In fact, the *Invincible*, *Shannon* and *Ajax* were on their way to him, passed Deal at 6 P.M. on the 27th, and joined Admiral Tracey three hours later.

Admiral Tracey was kept fully informed by the Admiralty of his enemy's movements, while the latter was, of course, in total ignorance of those of the defending force. From Flamborough Head Admiral Tracey probably was informed that the enemy was steering South, and was about thirty miles off. The weather was thick, so that when it lifted an hour later it was no surprise to Admiral Tracey to see the enemy close at hand, whatever astonishment it may have been to Admiral D'Arcy Irvine to find that he had run into the jaws of the lion. A general chase ensued, resulting in the capture of the *Inflexible* and the *Collingwood*.

All this is entirely what might be expected to happen in real war. It is but an elaborated illustration of what constantly happened in the wars of the past when the furtive cruiser dared to trust herself close to our coasts and found herself hemmed in by the defending cruisers who had seen from sea the signals denoting the presence of an enemy in a definite direction.

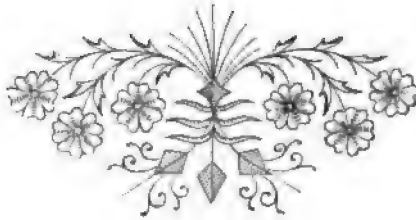
In all this we have to consider, I think, what were the conditions when the speed of the defending forces was slow and uncertain, and when the conveyance of intelligence on shore—from shore to sea—was equally so, and yet what the results were.

And then to recognize that every development of telegraphing and signalling, and every half knot which is added to the average speed at sea, can but make the fate of an inferior naval force more and more certain if it should adopt the wild theories of modern teachers, and venture on attacks such as Admiral Baird, by the hypothesis under which he acted, was compelled to make.

What has been the result to the inferior navy of Achill? More than half of it has fallen into the hands of the superior naval power. There is no reason to suppose that any of the ships captured were so irretrievably damaged as to be useless. In this case the superior fleet of twelve battle-ships has been swelled to sixteen, and the inferior fleet of nine has fallen to five.

Not a great deal of encouragement for any navy to transgress deliberately those principles of naval warfare which experience has established.

But, on the other hand, if all this becomes well understood in the country in future years, how well it will be that we should know where to spend and where to save the money of the taxpayers, and how much thanks will be due from them to the Board of Admiralty, which has, in a way never attempted before, enabled us to see where the rights and the wrongs of the problem lie.



The Russian Armour-clad Gun-boat

"Grazashitchi."

(From the *Vsemirnaya Illustratsia*.)



ON the 18th May 1886 the Tzar, by an Imperial Decree, set forth to the Black Sea Fleet, "how more than thirty years ago it had performed glorious deeds and sacrificed itself, for the good of Russia, being present in spirit on the memorable heights of Sevastopol. At the present day that fleet was renovating itself to the delight of a sympathizing fatherland." It is now represented by the *Chesme*, *Sinope*, *Catherine II.*, the *Nakhimoff* and *Korniloff*. What glorious names! cries our contemporary; it would have been impossible to select better! Among the lesser craft which are under construction is a gunboat of the type represented in the illustration. She is well protected, her sides by 5-inch armour, the deck by from 1 to 1½-inch, and the former by layers of "cellulose." She has a double bottom, and is built in water-tight compartments. The material used in her construction is steel, produced in Russian workshops from Russian iron; a step which was dictated by patriotism and a certainty that charcoal would be employed and not coke. Owing to this, it is stated, Russian steel excels that produced in England, Germany, or even Sweden. The gunboat is furnished with two compound engines, each of 1,000 horse-power, and will, it is anticipated, develop a speed of 15 knots. The armament will consist of one 9" gun ahead and one 6" gun astern. Beside these, 8 quick-firing Hodgkiss guns will be carried, and a couple of tubes for projecting Whitehead torpedoes. Her dimensions are as follows:—

Length from point of ram	-	-	237 ft.
Length between perpendiculars	-	-	223 "
Breadth at water-line	-	-	41 ", 7½ in.
Draught	-	-	11 "
Displacement-	-	-	1,492 tons.

The crew consists of 9 officers and 111 men, and in this vessel vastly improved structural arrangements have been made for their accommodation.



THE RUSSIAN GUN-BOAT "GRAZASHTCHI."

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TILDEN FOUNDATIONS**

Volunteer Notes.



THE Volunteer year is to all intents and purposes, as regards active manifestations of its aims and objects, over. From October to March the Volunteers are, so far as the outside public is concerned, "in retreat," and to many of them the release from big parades and the mingled joys and sorrows of the annual inspection is no doubt very welcome. But with all the quiescence which succeeds the latter function there ensues a period of good honest work in other directions than those of mere out-of-doors drill and manœuvre. A good deal of the *solidarity*—to use a French expression—of Volunteer corps depends upon the manner in which they employ their time of hibernation. The process of knocking recruits into shape is an important as well as a tedious one, while those who have passed the *pons asinorum* should appreciate the leisure for the acquisition of instruction such as cannot be afforded by marchings out or even by the annual camp. For officers and sergeants there are tactical societies, with programmes of good and useful work, while for the earnest private there are in most good corps facilities for at any rate seeing what application contemporary Service literature has to the requirements of Volunteering. Altogether "winter quarters" should by no manner of means represent to the Volunteer, of whatever grade, a period of utter inanition. Rather, it should mean an interval calculated to enhance, if not to create, that intellectual superiority which the Volunteer is always credited with possessing as compared with his *confrères*—we are alluding of course to the rank of private—in the Regular Forces.

September has been, of course, as usual, a month of shooting competitions of all sorts and sizes, ranging from the large county meetings to the regimental contests for marksmen's badges. In one sense these competitions constitute, perhaps, the most important element in the Volunteer movement, as tending to really make the

average Volunteer take an interest in the study of musketry, a study the absolute necessity for which was so carefully impressed upon the Force by Lord Wolseley in a memorable speech some months ago. That the Volunteer from a drill and manœuvre point of view will ever progress beyond a certain not very lofty standard is quite improbable, but his musketry capabilities may still render him a factor in tactics of an importance at present hardly sufficiently recognized. To this end the ordinary course of musketry, as practised in the Regulars and somewhat perfunctorily in the Militia, is of no serious effect. Inducements other than those connected with honorary attainment of this class or that must be offered, and shooting competitions with their varied and liberal prize lists supply the want. We do not wish to insinuate that even an appreciable proportion of those who enter for such competitions are "pot-hunters," we only desire to point out that without a system of annual prizes conceived on a large and comprehensive scale, Volunteer musketry would be, whatever enthusiasts may say or think to the contrary, a distinctly backward institution. Needless to say, we consequently admire the good sense as well as the liberality of the public, in giving particular support to this branch of a movement which in its way must certainly be reckoned as part of that great system of insurance which the nation is forced to pay upon the national wealth.

In connection with this matter of musketry, the War Office has introduced a very important change during the past month. It has reverted to the old system of allowing Volunteer officers to qualify at the Hythe School as instructors of musketry, and officers commanding corps have been called upon to make selections accordingly. The Commander-in-Chief is sanguine that the arrangement will have an excellent effect upon the musketry of the Volunteers, but, for ourselves, we confess to some doubts and fears. The musketry instructor is "born, not made," and we make bold to say that in many corps it will be difficult to find men who, however keen upon musketry and however capable of obtaining the Hythe certificate with the least possible effort, will make good instructors. Indeed, it is greatly to be feared that in many cases it will be quite impossible for the commanding officer to make any selection at all. It is not everyone who can spare four weeks to go through the Hythe course, while the subsequent loss of time and labour incurred in carrying out the duties of musketry instructor with anything like conscientiousness will be so considerable as to deter many otherwise willing candidates for the certifi-

cate. In this connection, by the way, it has been suggested that properly qualified officers who have retired from the Regulars should be employed to teach musketry to the Volunteers, being temporarily attached to corps for that special purpose, and having no disciplinary connection with them. It is thought that the plan could be worked economically, that many retired officers could be found willing to accept the work, and that they, being responsible to the War Office for results, would do the work thoroughly, conscientiously, and well.

A very painful incident has occurred during the month to mar the general harmony with which the Volunteer movement has of late been progressing. We allude to a case of direct insubordination on the part of three batteries of an Artillery Corps in the South of England, who, on account of some dispute over a challenge cup, quietly absented themselves from the annual inspection, thus subjecting their officers to great indignity, and, moreover, according to the letter of the law, losing for the corps capitation grant to the amount of some £400. This extraordinary conduct has naturally called forth considerable comment, so far as we have been able to gather, unfavourable to the perpetrators of a breach of discipline which can hardly be classed as other than outrageous. There is a puerility about the proceeding which naturally strikes the intelligent outsider as indicating a state of things in the corps in question which is quite incompatible not only with the general sentiments of the Volunteer movement, but with the associations which in any circumstances must be connected with the wearing of the Queen's uniform. That a dispute appertaining purely to an individual corps should be favourably influenced by a violation of the most ordinary laws of military discipline is a theory as wild as to make one think that the so-called superior intelligence of the Volunteer is occasionally akin to the dangerous quality which is supposed to exist in "a little knowledge." What is surely the right mode of procedure under such circumstances as those which brought about the *esclandre* referred to is a respectful intimation on the part of the aggrieved ones, to the effect that they desire the case to be submitted to the General Officer Commanding the District, failing which they have the alternative of resignation. Any other action is pretty certain to make the complainants more or less ridiculous.

Last month we concluded the *Volunteer Notes* with an allusion to the "Volunteer Patriotic Fund" which bids fair to become quite a standing dish for some time. But there are signs that the

enthusiasm momentarily kindled by the Lord Mayor is on the wane. In the provinces the idea is being taken up with but, comparatively speaking, little real vigour, and although no doubt a certain number of subscriptions will be from time to time forthcoming, they will be as nothing compared to what might have been achieved had the Lord Mayor made his scheme a really patriotic, instead of a purely metropolitan one. The whole movement has been a much too hurried one, and unless a little more vitality is given to it in the provinces it is greatly to be feared that in many districts it will prove little less than a *fiasco*. Already it is being found difficult to differentiate between town corps and country corps, the former not caring in the matter of public subscription to be identified with the latter, and the latter in many cases being quite unable without the assistance of the very big towns to raise the amount required. Altogether the situation is one of considerable perplexity to many commandants already sufficiently worried by details of finance and administration, and unless some "scare" of the same description as that formulated by the Lord Mayor in his article to the June number of the *Contemporary Review* can be successfully exploited, it may be safely predicted that a good many corps will not come up to Lord Wolseley's standard of equipment at next year's inspection.

The authorities at the War Office do not, apparently, see their way at present to any very serious encouragement of the mounted infantry detachments which many Volunteer corps have added or propose adding to themselves. By a recent order, it is true, hopes are held out of special Volunteer classes in this particular direction being formed at Aldershot during the winter, but the conditions under which attendance will be permitted are not such as to induce a very large number of candidates. Every Volunteer attending, so the order runs, must bring his own horse, and pay all expenses. The dazzling generosity of this concession will probably not dawn all at once on the mind, say, of the would-be Volunteer mounted infantryman from Yorkshire, to whom the thought that a centre nearer home might have been selected, in addition to Aldershot, will naturally suggest itself.

Considerable excitement was created about the middle of the month by the premature bursting of a 40-pounder shrapnel shell, during the practice of the City of London Artillery Volunteers at Sheerness. The shell, instead of compassing its regulated range of 1,600 yards, burst within 20 yards of the battery, severely injuring the adjutant of the corps, and causing considerable consternation

and some little hurt amongst the volunteers. An incident of this kind, attributed as it has freely been to the supply of defective or obsolete ammunition, is not calculated to reassure volunteer gunners, and it is earnestly to be hoped that the War Office, by prompt investigation, has seen its way to prevent the recurrence of such unpleasant variations from the ordinary routine of heavy gun practice.

Talking of volunteer gunners, it should be noted that very recently the War Office has taken a very decided step in the direction of encouraging field battalions in the Force, and has announced that there is a considerable number of 16-pounders ready for issue for this purpose. Artillery volunteer brigades have been invited to take these guns with an extra allowance of £100 per annum (to cover the cost of hiring horses, transport, &c.), for each battery of four guns. To earn this allowance, the battery must be sufficiently horsed, at least four times in the year, including the day of inspection, and the corps must undertake the safe keeping of the guns and the provision of adequately trained detachments. The experiment is an interesting one, and if it can be carried out successfully, a very important step will have been gained towards making the Volunteers a self-contained, as well as a generally effective force. But it is to be doubted whether, considering the amount of training that is requisite to produce even moderately good field artillery, any very important progress will be here made in the present condition of volunteering. In the first place, field artillery, in which the horses are only worked with the guns some four or five times a year, must necessarily be of rather a shadowy character; again, men fitted to act as drivers must be specially enlisted, as they are certainly not present in every brigade of Volunteer Artillery as at present constituted; lastly, is it not far better that Volunteers should consistently stick to the 40-pounder Armstrong, which is admirably adapted to their general purposes, and to which they seem as a rule to have taken a decided fancy? Unless we are greatly mistaken, these doubts will be justified by the action of the majority of commandants of artillery brigades, in reference to the 16-pounders referred to.

It is gratifying to notice that the efficiency of the Indian Volunteers is steadily on the increase. It is hardly necessary to dilate upon the enormous importance of encouraging the idea of citizen soldiery in a country like India, where, outside the chance of an invasion, there is always the risk of internal disturbance, in which a man armed with a rifle, and knowing how to use it, is as much

of a help as an unarmed and helpless man is a nuisance to an already fully occupied force of trained soldiers. Certainly the progress made of late has been most satisfactory, particularly in the direction of reserve battalions, in which are enrolled those whom circumstances prevent from joining, or continuing in the Volunteer Force proper. The first annual report of the Bengal Presidency Volunteer Reserve Battalion has been recently published, and although the corps was only formed in April of last year, it already numbers 447 efficient, that is, men who have an elementary knowledge of drill, and know how to handle a rifle. Of these, doubtless a very large proportion would never have had the chance of being equipped with a Government rifle had it not been for the introduction of the Reserve system; and when once a man in India has a rifle in his possession, there are plenty of inducements to practice. Not only are the ranges in most cases as good as it is possible for ranges to be, but in many districts there is an abundance of big game, such as deer, which afford the most effective of all kinds of marksmanship. Lastly, it cannot but engender a feeling of increased security to reflect that yearly the number of rifles in the hands of the Anglo-Indian population is increasing, as without in any way wishing to "cast the fashion of uncertain evils," one must always, when thinking of India, recall the memories of '57, and rejoice to think that we are not likely to be caught napping again.

Another direction in which the Anglo-Indian Volunteers are working is that of forming new naval brigades, one very important corps having been just started at Kurrachee, a port the future of which is likely some day to mean great things for the trade of India. The extreme vulnerability of the Indian sea-board renders the establishment of brigades of Naval Volunteers, wherever possible, most desirable, and we hope before long to see additional evidence of progress in this direction.

The work in connection with the New Wimbledon has been proceeding apace, thanks to the kindly co-operation of the authorities at Aldershot in the matter of lending large working parties of Regulars to clear the ground for the various sites. No less than 1,600 men have been for some time past at Bisley under canvas, and it is expected that the spade work will be completed before the cold weather sets in. The advantage of this assistance to the National Rifle Association has, of course, been enormous; indeed, it is difficult to say whether, if it had not been forthcoming, they

would not have found the expense of clearing the ground almost prohibitory.

It is to be hoped that when the ranges are in full swing, the Association will not forget these obligations, and will not hesitate to place their ground at the disposal of the Regulars whenever they can conveniently do so. If this is done, a very friendly feeling will undoubtedly be engendered, and that great dream of the future, a general shooting-ground, will be realised.

The resignation has been announced, during the past month, of Captain E. St. John Mildmay, the secretary of the National Association, a very familiar figure to all frequenters of Wimbledon, and much esteemed for his courtesy by all who have had any connection with the Association or its business. The competition for the succession will, of course, be a brisk one, and as the necessary qualifications are important and various, the Council will probably take some little time in making a selection. For many reasons, it has been urged that an ex-naval or ex-military officer should be chosen, but none the less is there a strong feeling that, considering the Association is a purely Volunteer organization, supported by Volunteer contributions, the members of the Force should at least be given a fair chance.

It has been officially notified that the next examination of Volunteer officers in Tactics, Fortification, Military Law, and Military Topography will be held throughout England, Scotland, and Wales on the First Tuesday in November. There are many who will watch with interest the results of this examination, particularly as regards the extra subjects in which no large amount of certificates has at present been obtained. In tactics the result has already been almost surprising, some 1,200 Volunteer officers having "passed," and so earned the extra capitation grant for their corps. In this connection, it may be remarked that there is a growing feeling that tactical societies should address themselves more thoroughly than they do to the task of imparting, by means of classes, instruction such as would materially assist candidates in passing the examination, if not in the extra subjects, at any rate in tactics. Some societies have, we believe, taken up this matter to a certain extent, but not, perhaps, quite so completely and practically as could be wished. For it is an undoubted boon to a man to have something besides the text-books to go to while preparing for the examination, and at the same time it is very hard that, with the primary object of benefiting his corps, he should be expected to incur the expense of private instruction. Possibly some

of the secretaries of tactical societies who have not yet attacked the subject may, before the winter session has regularly commenced, see their way to making a start in this direction, even though it interfere a little with the ordinary course of lectures and the practice of the war game.

While on the subject of examinations we cannot help obtruding a suggestion to the effect that, in this matter of special capitulation grant on account of "passed" officers, fortification should be given exactly the same footing as tactics. We believe that the better recognition of the value of a knowledge of field works would constitute a very important step in Volunteer progress towards efficiency, and we think this recognition could not be better conveyed than by giving officers who pass in field fortification with credit the same privileges as those earned by a certificate for tactics. In the matter of field engineering the Volunteers are unquestionably as weak as they can well be. A corps of Volunteer Engineers knows little if anything more of engineering work than an ordinary regular battalion of infantry, while if a battalion of Volunteer Rifles were called upon to do one quarter of what Thomas Atkins learns to do in the course of his Military Training they would probably be overcome with astonishment and possibly amazement into the bargain. Added to which, of course, we have the daily increasing importance of field works in connection with modern improvements in fire-arms, more especially as touching the Volunteers. For, however frequently our Regulars may come into contact with troops in which their own superiority in armament and equipment tells from the outset, it may be taken as a military postulate that the Volunteers, if ever they do have to face the foe, will face one armed to the teeth with all the latest improvements, and knowing singularly well how to take advantage of that fact.

One of the fixtures of the month has been the formation of a five days' camp near Chepstow for the special behoof of the cyclist Volunteers of Hereford, Gloucester, Cardiff, and Swansea. Although not specially impressed with the value of the cycle as adapted to military purposes, the writer cannot but admire the perseverance with which those Volunteers who have taken up the subject endeavour, by practice on all possible occasions, to realise their ideal. *Apropos* of the Chepstow camp, the idea has been mooted of putting cycling for a time on much the same footing with mounted infantry, as regards instruction and experiment, making Aldershot the centre. This course would certainly have the effect of deciding

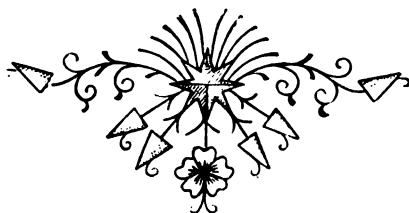
the future of military cycling, and as such is, we think, decidedly to be advocated. For even though the cycle may have a military value, it may still be a question whether that value is sufficient to justify the expenditure of time and money which is now being devoted to it by enthusiasts. On the other hand, if found to be efficacious, every effort should be made to encourage the idea by proper instruction on lines much more extended than those on which an independent corps section must necessarily work.

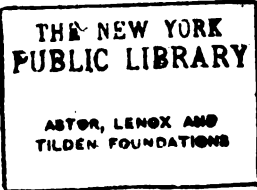
Renewed attention is being drawn to the question of signalling among Volunteer Corps, it having been found that among upwards of forty corps included in the Home Districts, only eight possess properly qualified teams of signallers. It is argued by a contemporary that the War Office having made a special grant for instructors and assistant instructors in this most essential branch of military science, should simply insist upon an adequate return of trained men, and, unless the latter are forthcoming at the inspection, sternly withhold the grant. In this we heartily coincide, and we would go yet further. We would have the War Office decline to allow any corps not properly provided with signallers and other similar rudimentary requirements to launch out in any direction whatever. It may be gratifying to this or that corps to have its mounted infantry detachment, its cyclist section, or its machine gun, but it should be made an axiom that these supplementary enterprises should never be permitted unless a corps is thoroughly efficient in all other respects. A little firmness on the part of the War Office in these matters would soon remove what, if not actual causes for reproach, are still weak points which would quickly show themselves if the corps in question were to take the field.

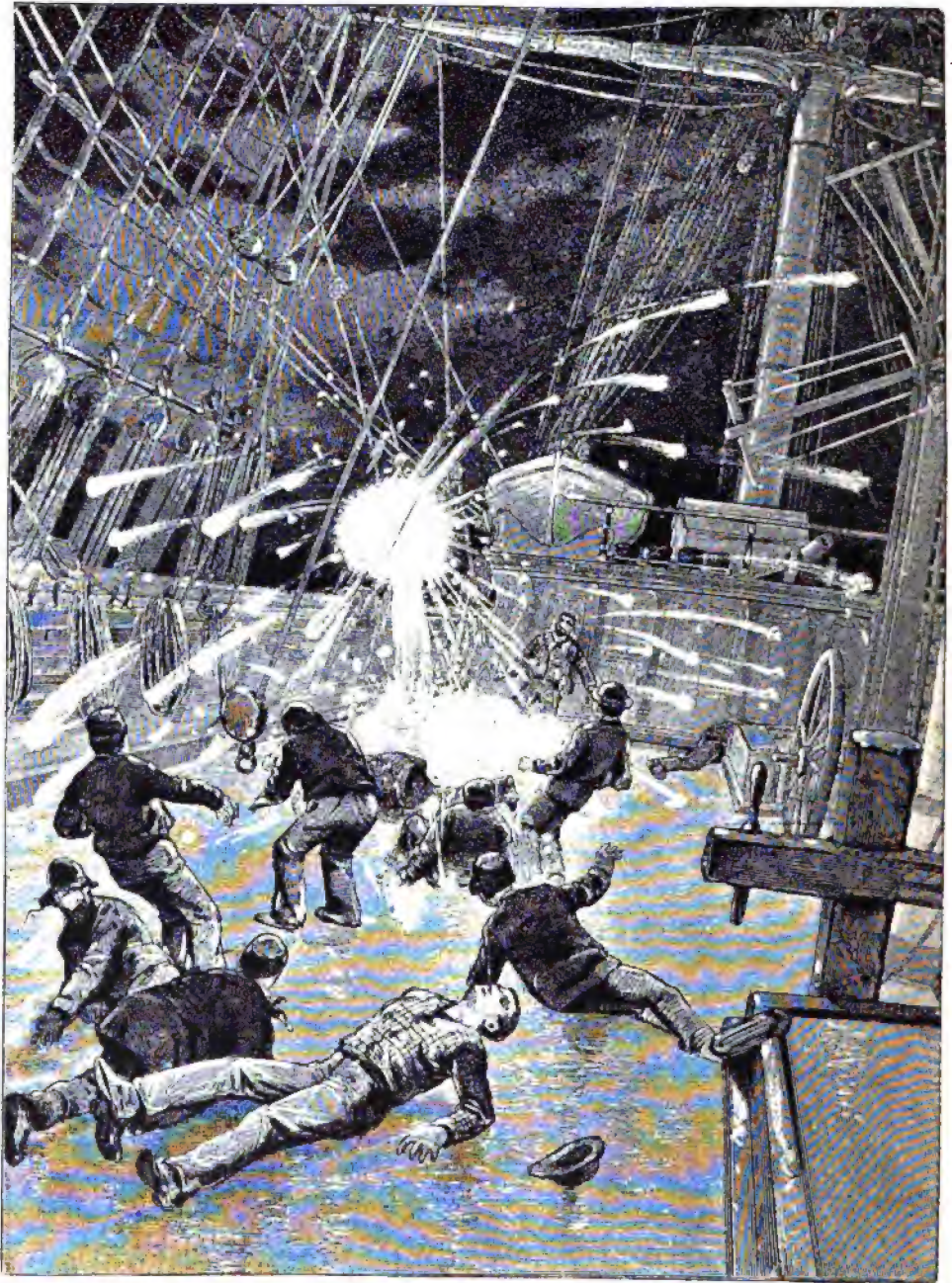
At last the authorities charged with the preparation of the Home Defence Scheme have come to a definite conclusion, to the effect, namely, that in the event of an invasion, the enemy would, in all probability, make for London as the most effectual method of breaking down internal opposition; and that the decisive engagement would most likely be fought somewhere southward or north-eastward of the metropolis. In pursuance of this view two lines of defence have been marked out, one between Guildford and Sevenoaks, the other between Tilbury and Epping, and to these lines about 90,000 Volunteers and 250 guns have been allotted. The most careful arrangements have been made by the higher railway officials who constitute the Engineer and Railway Volunteer Staff Corps for the rapid transport of brigades from a distance

to their stations in the two lines of London defence, and it is calculated that even in the case of Yorkshire corps the mobilization could be effected within three days. As regards the lines themselves, it is stated that already localities are being selected for entrenched camps and gun-batteries, and that Government is giving its attention to the preparation of store-houses and magazines.

All this is, no doubt, satisfactory, and indicates a distinct intention to place the Volunteers in their right position as regards National Defence. But right or wrong, we cannot help thinking that the scheme will be a blow to many local susceptibilities, not so much as regards the Volunteers themselves, but as regards the provincial towns which contribute in many cases very handsomely to the support of local corps. Especially will this be the case, we fear, with reference to the Patriotic Fund aforesaid. Great towns like Manchester, Liverpool, and Leeds may possibly remark, that as the Lord Mayor could not see his way to helping their corps, they see no reason why they should help to defend London. Of course this would be a most unpatriotic view of the case; but we are none the less convinced that public sentiment will at first run in this direction, and we would entreat Volunteers accordingly to take a rational view of the situation, and to persuade their friends and supporters to do the same.







A THUNDERBOLT AT SEA.

A Thunderbolt at Sea.



WE learn from the pages of the *Ny Illustrerad Tidning*, that the Swedish ship *Edvard*, sailing from Havre to New York under the command of Captain Akermark, was lately visited by the extraordinary electrical phenomenon which is depicted in the accompanying plate. A stiff north-easter was blowing at the time, with foul weather. At half-past three in the morning, while the crew were bracing the mainyard, a mighty peal of thunder was heard with a loud detonation. A flash of lightning struck the ship, and a ball of fire like a bombshell exploded in the rigging, detaching long fiery tongues like falling stars in every direction. The phenomenon spread a dazzling light around during the instant that it lasted, and it was repeated several times at short intervals. The crew were thrown helplessly on deck. So soon as they recovered themselves, the vessel was subjected to a minute investigation, but not the least damage was sustained through the bombardment which she had thus experienced at the hand of Nature.



A List of Military Inventions

PATENTED DURING THE FOREGOING MONTH.

[*This List is specially compiled for the ILLUSTRATED NAVAL AND MILITARY MAGAZINE by Messrs. Rayner and Cassell, patent agents, 37, Chancery Lane, London, W.C., from whom all information relating to patents may be had gratuitously.*]

- 12,704. Improvements in cartridges. JAMES GEORGE ACCLES, 24, Southampton Buildings, London.
- 12,770. Improvements in the construction of the hulls of ironclads or other vessels. JAMES FREDERICK HODGETTS, 1, Queen Victoria Street, London.
- 12,825. Improvements in or connected with projectiles for ordnance. WILLIAM HUGHES, 128, Colmore Row, Birmingham.
- 12,933. Improvements in apparatus applicable for ascertaining and laying down on a chart a vessel's position at sea. WILHELM LUNDGREN, 6, Lord Street, Liverpool.
- 13,158. Improvements in the ejector mechanism for drop-down guns. CHARLES HENRY MALEHAM, Bank Buildings, George Street, Sheffield.
- 13,200. Firing small charges in big gun practice, and the appliances used therefor. JOHN EWART, 115, St. Vincent Street, Glasgow.
- 13,486. Improvements in making and applying explosives. CARL OLOF LUNDHOLM and JOSEPH SAYERS, 87, St. Vincent Street, Glasgow.
- 13,620. Military spade and cutting tool. EVAN JAMES DAVIES, 31, South End, Croydon, Surrey.
- 13,725. Improvements relating to the hardening or tempering of projectiles or shells. ALEXANDER MUIRHEAD, 45, Southampton Buildings, London.
- 14,013. Improved machinery for the manufacture of compound bullets. ARTHUR GREENWOOD, 6, Breems Buildings, Chancery Lane.

SPECIFICATIONS PUBLISHED.

- 13,789. JUSTICE (FRAENCKEL). Explosive compound. 1888. 4d.
- 9,773. MANNLICHER. Repeating small-arms. 1889. 11d.
- 14,602. FIELDING. Breech mechanism for ordnance. 1888. 8d.
- 14,579. ANDERSON. Automatic sights for guns. 1888. 8d.
- 13,624. MAXIM. Tempering and toughening ordnance. 1888. 1s. 3d.

The above specifications published may be had of Messrs. Rayner and Cassell, 37, Chancery Lane, at the price quoted.

Reviews.

Wellington; or the Public and Private Life of Arthur, First Duke of Wellington. By G. LATHOM BROWNE. (London: Society for Promoting Christian Knowledge.)

This is rather a compilation than an original work, but so much industry and skill and so much honest enthusiasm have been shown in the selection of its component parts that it surpasses in interest many works with more claims to originality.

After all, the best way of writing biography is to make it resemble autobiography by letting the subject of the narrative speak for himself whenever possible, and this is what Mr. Browne has done, very successfully done.

A work which gives a good idea, in a brief space, of the life of this great soldier must be acceptable to Englishmen, and especially to military men. Wellington may be looked upon as the type of the best sort of English soldier; in his unflinching devotion to duty and distaste for bombast and ostentation. His dislike to useless displays of reckless courage is a direct outcome of this. Mr. Browne gives the Duke's comment on the swaggering exploit of a young French dragoon officer at Hougomont (p. 124). That he possessed that calm bravery and self-possession which is essential to great commanders is well known, and several examples of this are given.

In his case also, courage seems to have been allied to gentleness and humanity. The letter to Lady Sarah Napier, apprising her of a severe wound necessitating amputation received by her son, is one among several proofs of this.

In these respects the Duke seems to have surpassed Napoleon, whom, we regret to see, Mr. Browne constantly writes of as *Buonaparte*. The emperor chose to adapt his name to French pronunciation by expunging the *u* and by rendering the final *e* mute, and there seems to us something undignified in attempting to revive an obsolete orthography. One is led to this by the headings of some of the paragraphs, "*Buonaparte's* Littleness of Mind" to wit. The Duke may, in intimate conversation have permitted himself to call the great Corsican "*Jonathan Wild the Great*," but that scarcely justifies making this the heading of a paragraph. The opinions expressed by the Duke of Wellington on his contemporaries rarely sinned by over-indulgence, and were not mitigated by much squeamishness in the choice of words. In the "*Interview with Lord Nelson*" we have narrowly escaped a sweeping condemnation of our greatest admiral.

The style of a proclamation to the French people on the entrance of the British army into France led Prince Talleyrand to estimate the Duke's ability as a linguist as meanly as the field-marshal did the diplomatist's talents. Everyone knows the story of someone asking Talleyrand "*How does the Duke of Wellington speak*

French?" "Il le parle, Monsieur, avec beaucoup de courage." Indeed, the quality of the French in this work leaves something to be desired; for instance, it is not usual to talk of the number of gendarmeries in a town.

The specimens we get of the Duke's letters are striking by their plainness and directness of expression. There is no possibility of doubting the writer's meaning, a quality more useful in business than grace of style. There will be something pleasing also to Englishmen in the successful efforts of Wellington to mitigate the brutality of Blucher. Many readers will be surprised by the Duke's estimate of the relative value of French and English cavalry, and though it is unnecessary to attach much importance to mere after-dinner chat, we would recommend it to those who think that a French cavalryman must always be a negligible quantity. This view, a few years ago, was chiefly founded upon the fact of his wearing very loose overalls. Of the good feeling existing between the British troops on the Franco-Spanish border and "their friends the enemy." Mr. Browne gives us several amusing instances, one of which is taken from Mr. Gleig's book, *The Subaltern*. This good feeling is in strong contrast with the feeling which existed between our people and the Spaniards, who appeared determined not only to do as little in their own defence as they could, but to put as many impediments in the way of its successful accomplishment as possible.

The latter portion of the book deals with the Duke's political life, and throws a good deal of light upon the troubles of the times, especially upon those incident to the Catholic Emancipation Act. It is interesting to note, in this connection, how like the problems to be settled were to those which present themselves in these later days. In the first proposals for the Roman Catholic Relief Bill submitted to the King, we find these words, "Combinations have been formed to remit the payment of rent and tithes to members of the Brunswick Club, in which description is included nearly every Protestant of the Church of England residing in the country, and to bind the Roman Catholics not to deal with members of the Brunswick Club as shopkeepers, &c." And in a memorandum addressed to the King on the 14th October 1828, the Duke writes, "I do not suggest an impossible hypothesis when I state the possibility (I might state it more strongly) of the Roman Catholic tenantry of the country refusing to pay tithes or rents." This is surely nothing other than what is now known as "boycotting," or, in the more euphuistic language of a living statesman, "exclusive dealing," and the "plan of campaign." While the memory is still fresh of the Trafalgar Square riots, and the raids made by the rabble of London on clubs and shops in the West End of town, it is not without interest that we turn to the description of the precautions taken against the Chartists in April 1848, and see in how thorough a spirit the Duke was prepared to deal with the mob. It has sometimes been alleged that the Duke of Wellington was inclined to make light of his

soldiers' share in victorious campaigns, and that he was, in fact, apt to be hard upon that much-enduring individual who has received the name of "Tommy Atkins." But that he could upon occasion speak up boldly and well on his behalf is seen in his generous defence of the 62nd Regiment in the House of Lords. The regiment had been described by the general commanding as having been seized with panic, and the Duke pointed out that it was hard to launch such an accusation against a corps which had lost five-eighths of its numbers in the engagement in question.

The Military Career: a Guide to Young Officers, Army Candidates, and Parents. By Lieut.-General Sir WILLIAM BELLAIRS, K.C.M.G., C.B. (London: W. H. Allen & Co. 1889.)

A book like this, embodying as it does the life experiences of a most distinguished officer, ought to prove very useful to the classes for whom it has been written, viz., those about to select the military profession as their walk in life. Adverting to the increased and increasing difficulty of making a living in the various professions, the writer enforces the necessity of making a selection early in boyhood, otherwise the candidate will be heavily handicapped in the race for a commission, there being four competitors for every vacancy which occurs. Parents are cautioned that before a boy is permitted to train for the army, they should well ponder whether their pecuniary resources admit of defraying the necessary educational expenses, and those attendant on a military outfit; and they are wisely given to understand that a subaltern's pay must be supplemented by a money allowance varying in amount according to the branch of the service which is entered. But we need not enlarge on the completeness of the information here supplied in respect of the candidate's future course. It is followed up by rules and maxims, the result of wide and sagacious observation, for his guidance when the coveted goal has been reached, and he has donned Her Majesty's uniform as a commissioned officer. Nor is the unsuccessful competitor forgotten. He is advised as to his future course, and warned of the pitfalls which beset his path in various shapes, including emigration. Above all, he is never to despair, and his attention is drawn to Darwin's early career, as a proof that "it is never too late to mend." The chapters on "Conduct in Army Life," are exceptionally attractive, not merely for those about to enter the army, but for the general reader also. At times, the writer, soaring above the didactic, adopts an analytical style, reasoning philosophically on the mental and moral attributes whose cultivation he recommends. A high ideal is here adopted, and the young officer who shall realise it, however partially, will prove a welcome addition to any regiment. It only remains to say that the text is garnished with quotations, in verse and prose, which add to the book's attractions, and prove the extensive acquaintance with standard literature possessed by its author.

At the Play.

THE two most interesting and important productions since our last issue have been those at the SHAFTESBURY and the HAYMARKET. At the SHAFTESBURY Mr. Willard re-opened for the autumn season with a new play by Mr. H. A. Jones, called "The Middleman," which was received with absolute enthusiasm on its production, and has been almost universally well spoken of by the press. Its reception has been in marked contrast with that of Mr. Jones' last venture, "Wealth," but we cannot help thinking that this is rather a proof of the uncertainty of the popular verdict than a consequence of the great superiority of the latter over the former play. In each there is one very prominent character admirably drawn and acted to perfection, and in each there is very little else. One of the most noticeable points in "Wealth" was the introduction of unnecessary pointless characters, who strayed about the stage in a flock, had little individuality or interest, and could quite well have been dispensed with. The same fault is apparent in "The Middleman," the Middleman's wife and daughter, and the baronet and his belongings have nothing to do, and are not wanted; and although the heroine's sister and her comic lover may be said to have a distinct *raison d'être*, as providing the necessary relief to the serious action of the play, the dialogue set down for them is so absolutely dull, flat, and unprofitable, that not even the clever renderings of Miss Annie Hughes and Mr. Garden can succeed in making these characters fulfil their mission.

As in the case of "Wealth," however, the main interest is well sustained both by the author and actors, for Mr. Willard should by rights share the honours nearly equally with Mr. Macintosh, while Miss Maude Millett and Mr. Esmond, as the lovers, add much to the success of the play by their quiet, unforced acting. Mr. Willard's conception and rendering of Cyrus Blenkarn are indeed well worth seeing, and the admirably managed scene in the Firing House (which rests almost entirely on his shoulders) carries away the audience, and will doubtless make the fortune of the piece. We cannot, however, consider the construction of the play good, any more than that of "Wealth," (the last act is specially weak,) nor do we believe that either would have had a chance of acceptance and success but for the fact that at each theatre the actor-manager was enamoured of the principal part. Mr. Macintosh filled a difficult and somewhat thankless rôle, and filled it admirably; there is a delicacy and finish about all that this excellent actor does which makes any character in his hands worth seeing, though he has never appeared quite to as great advantage as in the character of William III. in "Lord Clancarty."

The HAYMARKET has also scored a success with Mr. Buchanan's version of "Roger La Honte," which he has named "A Man's Shadow," and if a very interesting story and excellent situations skilfully and naturally introduced can be held to constitute a good play, Mr. Tree's last venture has every right to be so called. Nothing more dramatic than the third act has been seen on the stage for a long time, and although there is something of the inevitable anti-climax in the fourth, still the interest is fairly sustained to the end, and we must own to a preference for the happy conclusion over such a termination as that of "Captain Swift." In other respects, however, the play appears to us weak; there is very little character and individuality about the *dramatis personæ*, and the comic element is not only vulgar and unpleasant but singularly deficient in humour; we feel considerable sympathy with Mr. Chas. Collette, Mr. Robson, and Miss Norreys, who have to support it. They do their best, and indeed all the acting is good, including that of Miss Minnie Terry (one of the very few unaffected children on the stage), and of Mr. Kemble in the small part of the President of the Court, but we must confess ourselves quite unable to join in the praises showered on Mr. Tree by the press, for his versatility and the contrast he makes between the two parts he represents in the play. Mr. Tree is, in our opinion, the first actor now on the English stage, and we expect a clever rendering of any part he undertakes, and this we certainly get, but on that particular point of the contrast between Laroque and Luversan, we must own to considerable disappointment. It is true that his "make up" cannot help him much, since the physical likeness between the two men is a point—indeed *the* point—in the play, but we had expected to see a more marked distinction of bearing and manner, and had hoped that the very peculiar ring in the voice might have been more disguised. As it is, one never gets rid of the impression that it is Mr. Tree filling two parts. Mr. Fernandez's acting, on the other hand, was a pleasant surprise; we have never seen him so good as this, and indeed his death scene and the soliloquy when reading the letter could hardly, we think, have been surpassed. Miss Julia Neilson has never impressed us favourably, and the faults so obvious in "Brantingham Hall" appear quite as strongly in her rendering of the unpleasant part given her in "A Man's Shadow"; her movements are awkward and restless, her intonation monotonous and her pathetic utterances much too "long drawn out." She looks very handsome, but that is all. Mrs. Tree, on the contrary, has hit on an unbecoming green gown, and does not look her best; but her acting steadily improves, and she made the most of the not very large opportunities given her. A word of praise should be given to Mr. Hargreaves' characteristic sketch of an old accountant, who appears for a few moments in the trial scene.

It is very seldom that a production at the ADELPHI now-a-days is a failure, a sound discretion being exercised in consulting the tastes of its patrons, and there is every reason to think that "London

Day by Day " will be as successful as its predecessors. The story told in it by Meesrs. Sims and Pettit is not very novel and not very exciting, for virtue is not in as deep distress as usual, and vice is not so triumphant in the first four acts but that its downfall is very clearly foreshadowed; but there is some effective dialogue and some telling characters, and above all these last are exceptionally well acted. The hero and heroine are in the hands of Mr. Alexander and Miss Alma Murray, who put more refinement and delicacy of touch into their performance than is usual in a melodrama; and if one regrets to see their powers somewhat wasted, at any rate it is refreshing to see this sort of part acted without clap-trap. The same may be said of Miss Mary Rorke, who can always be relied on for an intelligent and refined rendering of any part entrusted to her. Mr. Shine shows genuine humour as a love-sick hansom-cabby; while Miss Jeck is a little common place as his sweetheart. Mr. Beveridge gives an excellent picture of a hearty, shrewd Irish-American (the mixed intonation being very happily given), who is the *deus-ex-machina* of the piece; and Miss Kate James is clever and true to life in the conventional part of a street arab.

Of the three "villains," only Mr. Abingdon can be considered successful; Mons. Marius, clever actor as he is, does not make a convincing plotter, nor seem at all at home in the murder scene; while Mr. L. Rignold, though he gains plenty of applause from the gallery, over acts and burlesques his part greatly to the detriment of the serious interest of the play. The scenery is effective and well painted, but is not in itself sufficient to make the play attractive.

THE AVENUE has reopened for a short season under the management of Mons. Marius with "The Brigands," by Offenbach, with a libretto written some years ago by Mr. W. S. Gilbert. The company is composed of names not well-known in London, and the execution calls for no special comment.

At the GAIETY the well-known company, including Mr. F. Leslie and Miss Farren, who have been so long away on their Australian tour, were welcomed with enthusiasm on their return to London with a new burlesque on "Ruy Blas," by "A. C. Torr" and Herbert Clarke. The piece, which was previously produced at Birmingham, gives full scope to this excellent burlesque company, and is quite up to the Gaiety level.

Three productions at the end of September were too late for this issue, namely, "The Royal Oak," at DRURY LANE, with Mr. Henry Neville as Charles II., supported by an excellent cast, including Mr. Arthur Dacre and Miss Fanny Brough; "The Castle of Como" at the OPERA COMIQUE, a "romantic opera," by Major G. Cockle, the actors in which—with the exception of Mr. Leo Stormont—are little known to fame; and, lastly, the much-talked-of revival of "The Dead Heart" at the LYCEUM, which ought to give good scope for scenery and mounting, and will bring back to the stage the welcome figure of Mr. Bancroft. We wish we could see any

announcement of Mrs. Bancroft's intention of following this good example.

"Penelope," Mr. Solomon's musical version of "The Area Belle" also will have been added to the bill at the COMEDY before these pages appear. This has an excellent cast including Mr. Penley and Miss Alma Stanley.

Pieces already noticed and still running.

COMEDY.—"Æsop's Fables," farcical comedy, Mr. W. S. Penley, Mr. W. Everard, Mr. W. Lugg, Miss Alma Stanley, Miss Goldney, &c., and "Penelope."

COURT.—"Aunt Jack," farcical comedy, Mrs. Arthur Cecil, Mr. W. Grossmith, Mr. Eric Lewis, Mr. Aynesworth, Mrs. John Wood, Miss Filippi, Miss F. Wood, &c., and "His Toast."

COVENT GARDEN.—Promenade Concerts, under the direction of Mr. Freeman Thomas.

CRITERION.—"Betsy," farcical comedy, Mr. Guise, Mr. Maltby, Mr. Saunders, Miss Lottie Venne, Miss Robertson, Miss R. Saker, &c., and "The Dowager."

HER MAJESTY'S.—Promenade Concerts, under the direction of Mr. H. J. Leslie.

LYRIC.—"Doris," comic opera, Mr. Ben Davies, Mr. Hayden Coffin, Mr. A. Williams, Miss M. Tempest, Miss A. Barnett, Miss H. Coveney, Miss H. Glenn, &c., and "Love's Trickery."

PRINCE OF WALES'S.—"Paul Jones," comic opera, Mr. H. Monkhouse, Mr. H. Ashley, Mr. Templer Saxe, Miss Agnes Huntington, Miss Phyllis Broughton, Miss Annie Schuberth, &c., and "John Smith."

PRINCESS'S.—"Proof," melodrama, Mr. W. H. Vernon, Mr. J. Beauchamp, Mr. S. Caffrey, Mr. J. H. Barnes, Miss Grace Hawthorne, Miss M. Illington, Miss Carlotta Leclercq, Miss Dolores Drummond, &c., and "Grown Up," Miss C. L. Robertson.

SAVOY.—"The Yeomen of the Guard," comic opera, Mr. J. Wilkinson, Mr. R. Temple, Mr. W. H. Denny, Mr. Courtice Pounds, Miss G. Ulmar, Miss J. Bond, Miss R. Brandram, &c., and "Mrs. Jarramie's Genie."

STRAND.—"Our Flat," farcical comedy, Mr. W. Edouin, Mr. C. Fawcett, Mr. W. Hawtrey, Miss May Whitty, Miss Goward, &c., and "Boys will be Boys."

TERRY'S.—"Sweet Lavender," comedy, Mr. E. Terry, Mr. A. Bishop, Mr. Brandon Thomas, Mr. H. Dana, Miss Carlotta Addison, Miss M. A. Victor, Miss Blanche Horlock, Miss Annie Irish, &c.

VAUDEVILLE.—"In Danger," Mr. F. H. Macklin, Mr. F. Terry, Mr. R. Boleyn, Mr. Julian Cross, Miss Marie Linden, Miss Florence West, Miss Cicely Richards, &c., and "Betsy Baker."



Foreign Sequice Magazines.

SUMMARY OF ARTICLES.

THE MILITARY MAGAZINE (*Voyenni Sbornik*). (St. Petersburg.)
September 1889.

The Passage of the Balkans by Skobelev, by General Kuropatkin
—Military Life at Krasnovodsk on the Caspian Sea—The Construction of Military Railroads in France.

REVISTA ARMATEI. (Bucharest: Edward Wiegand, 14, Strada
Covaci.) May, June, and July 1889.

The Fortifications before the Chamber—Manœuvres with the
Military Train in Russia—Mountain Troops—The Requirements
of Cavalry in Modern Armies—Command and Promotion—General
Manu's Speech on the Fortifications, and Reply to Prince Bibescu
on the same subject—Bill on Army Promotion.

REVUE DU CERCLE MILITAIRE—ARMÉES DE TERRE ET DE MER.
(Paris: 37, Rue Bellechasse.) 18th August and 8th Sep-
tember 1889.

Coastal Batteries and Ships of War—The New Law on Recruit-
ing (*concluded*)—The Military Exhibition of 1889 (*continued*)—The
Evolution of the Torpedo-Boat—First Help on the Field of Battle.

JOURNAL DE LA MARINE. LE YACHT. (Paris: 50, Rue Saint
Lazare.) 17th, 24th, and 31st August, and 7th September
1889.

The Navy and the Exhibition (*concluded*)—The Trials of the
English Armourclad *Trafalgar*—The English Fleet and Marine
Engines—The New Naval Programme of the United States—The
English Naval Manœuvres.

REVUE DE CAVALERIE. (Paris: Librairie Militaire, Berger, Levrault
et Cie., 5, Rue des Beaux Arts.) August 1889.

Chamorin, by General Thoumas—The Artillery of a Cavalry
Division in Action—Study on Patrols (*continued*)—Cavalry Man-
œuvres (*concluded*).

REVUE MILITAIRE DE L'ÉTRANGER. (Paris: L. Baudoin et Cie., 30,
Rue et Passage Dauphine.) 15th and 30th August 1889.

The Organization of the Train in the Russian Army—The Colo-
nial Possessions of Germany (*concluded*)—The Reserves of the

Spanish Army—Firing Regulations of the German Field Artillery—The Military Resources of Montenegro—The English Army in 1889—Changes in the Organization of the Belgian Army (*continued*)—The Invasions of India (*continued*).

LE PROGRÈS MILITAIRE. (Paris: 12, Rue du Mont Thabor.) 17th August to 7th September 1889.

The Recruiting of Officers of Reserve—The Defensive in the Manœuvres—The Composition of the Voluntariat—Artillery Fire—The Battle of Frœschwiller.

JOURNAL DES SCIENCES MILITAIRE. (Paris: L. Baudoin et Cie., 30, Rue et Passage Dauphine.) August 1889.

Permanent Fortification at the Present Day (*concluded*)—Historical Sketches of the General Staff (*continued*)—Fire Tactics of the French Infantry (*continued*)—The History of the New French Cavalry Regiments (*continued*).

LE SPECTATEUR MILITAIRE. (Paris: 15, Rue Saint-Benoit.) 15th August 1889.

The Regulation of the 3rd of June 1889 (*continued*)—Letters on Cavalry (*continued*)—The Campaign in Mexico (*continued*)—French Military Schools, Past and Present (*continued*)—Historical Comparisons between the French Recruiting Laws of 1868 and 1889.

REVUE MILITAIRE BELGE. (Bruxelles: Librairie Militaire, C. Muquardt.) No. 2., 1889.

The Military Hospital of Brussels (*continued*)—Modern Fire-arms and Ammunition (*continued*)—Constantinople and the Balkan Peninsula—Reserves on the Field of Battle.

DEUTSCHE HEERES-ZEITUNG. (Berlin: 41, Königgrätzerstrasse.) Nos. 65 to 71, 1889.

A Comparison Between Recent French and German Military Legislation (No. 65)—The Russian Naval Manœuvres (No. 66)—The English Naval Manœuvres (No. 67)—Reorganization of the Austro-Hungarian Artillery (No. 69)—The Autumn Manœuvres of the 8th French Corps d'Armée (No. 70)—Trials with the New Swiss Equipment.

MITTHEILUNGEN AUS DEM GEBIETE DES SEEWESENS. (Pola: Druck und Commissionsverlag von Carl Gerold's Sohn in Wien.) No. 7 and 8 1889.

England and the Declaration of Paris—Gunpowder as a Means of Launching Torpedoes in the French Navy—Photo-ballistic Experiments in Pola and Meppen.

RIVISTA MILITARE ITALIANA. (Roma : Voghera Carlo.) August 1889.

The New Penal Code and Military Legislation in Italy—How Future Victories will be Won—Soldiers of Our Time : Skobelev (*concluded*)—Benedetto Cairoli.

RIVISTA DI ARTIGLIERIA E GENIO. (Rome : Voghera Carlo.) No. 3, 1889.

The Castel Sant' Angelo at Rome—Notes on Shrapnel Fire—Incandescent Electric Light—German Regulations for Field Artillery Fire—The Production of Hydrogen by Electrolysis for the Inflation of Balloons.

THE UNITED SERVICE. (Philadelphia : L. R. Hamersly & Co.) September 1889.

Army Reform—Our Naval Policy—The Future of Canada—The Militia as an Element of National Defence.

JOURNAL OF THE U.S. CAVALRY ASSOCIATION. (Kansas : The U.S. Cavalry Association, Fort Leavenworth.) June 1889.

Cavalry War Lessons—The Pistol *versus* the Sabre for Light Artillery—Identification of Deserters—Letters on Cavalry, by Prince Kraft zu Hohenlohe-Ingelfingen—Marching and Camping Cavalry, and Caring for Horses in the Field—Drill Regulations for Cavalry, United States Army.

REVUE D'ARTILLERIE. August 1889.

Field Artillery in Tonkin—Lariboisière—Artillery at the Exhibition of 1889.



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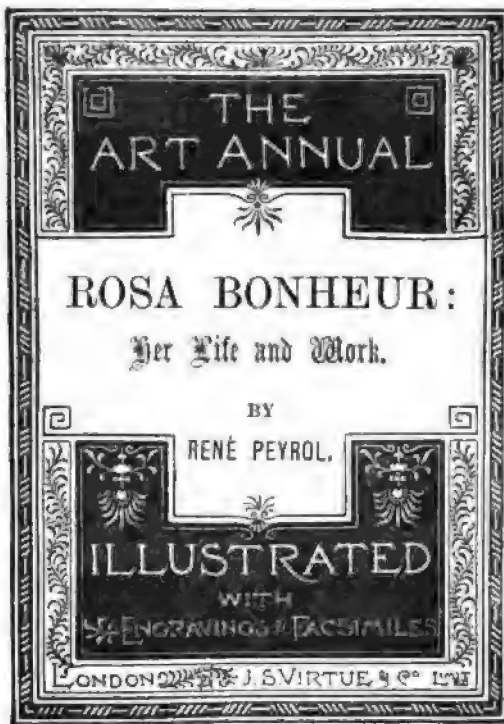
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Vol. III.

The Battle of Eckernförde.

By HIS MAJESTY THE KING OF SWEDEN AND NORWAY.

Translated, with Special Permission, by CARL SIEWERS.



It is with deep and painful emotion that a sailor takes up the pen to delineate the dark outlines of a battle which resulted in disaster and shame to a service to which he belongs heart and soul, a combat wherein the forces were so unequal and the victory so brilliant to shore batteries as well as to troops who had hardly an idea of what a man-of-war was like and, therefore, no doubt entered upon the struggle with trepidation. However, as even disaster should be taken to heart by every friend of the naval service, in order that we may gain experience for coming times, I have deemed it of some value to sift all the varying reports of the German-Danish naval action of Eckernförde in the war of 1849, so that the truth may be ascertained as nearly as possible respecting this disaster.

The war between Denmark and the Central Government at Frankfort about the possession of the Duchies blazed out afresh in April 1849, the negotiations for peace having come to nothing. The Danish nation stood alone. The justness of its cause was its only ally. The army, although increased during the winter to 30,000 men, could in no way compare in point of numbers with the German, which daily received reinforcements and could easily make good the losses of the 50,000 men who had already entered the Duchies. At sea, however, the Danish navy ruled supreme, there being not a single German ship to oppose it. Moreover, the navy had enjoyed from time immemorial the confidence of the people. During several centuries, the honour of the Danish arms had almost wholly been sustained by the navy, which was therefore more popular than the army. Its officers were renowned for their skill, and still more for their daring. True, there was a great deficiency of sailors, when so many vessels had to be equipped at once; but, on the other hand, the enemy possessed not a single vessel. The outlook for the Danes was, therefore, very promising.

The command of the Baltic squadron was conferred upon Commodore Garde, whose duty it was to blockade Swinemünde, partly also Kiel and Lübeck, and the Prussian coast, as well as demonstrate offensively along the shores of the Duchies upon the eastern wing of the German army. Attention was particularly directed towards Eckernförde Bay, of which I append a sketch map. The mode of attack contemplated, although hardly intelligible, appears to have been this: the batteries having been destroyed, the town was to be attacked by landing, earthworks thrown up, and then, according to circumstances, Kiel and Friedrichsort operated against, or, at all events, an attempt made to force the Germans to retrograde through Northern Schleswig, and thus facilitate the junction at Sundeved of the Danish army corps in Jutland and Als. To attempt all this with the small force at disposal, hardly more than a thousand men, was certainly ridiculous. Even with 10,000 men the undertaking would have been risky.

However that may be, Commodore Palludan, according to his own statement, received express orders from *den Høie Commandø*, or in other words the Danish Admiralty, to enter Eckernförde Bay, destroy the batteries, and capture the town. The narrow Eckernförde Bay is about eight miles long, reckoned from the outer edge of the so-called Middelflack, a shoal, to the steep shore south of the little town, which is situated on a promontory between



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the sea and a small lake. The fiord, by the compass, runs nearly E. and W., its shape being like that of a trawling-net. The shores are generally steep, and intersected by cavities, which in some places form lakes and pools. The depth at the mouth of the bay is a little more than twenty fathoms, but only a few cable lengths from the shore the depth decreases to seven or ten fathoms.

The troops ordered up for the defence of the coast of South Schleswig were mostly Saxons, some Nassau infantry, and Schleswig-Holstein fortress artillery, all under the command of Prince Ernest of Saxe-Coburg-Gotha.* The Prince directed the defence in person, his whole force consisting of from three to four battalions of infantry and half a battery of four Nassau 12-pr. guns. In addition, two earthworks had been thrown up, a northern one at A, armed with two 84-pr. guns of Paixhan's construction and two 24-pr. guns.† In the course of the battle pits were lighted in the southern battery, in order to make the shot red-hot. The defenders were thus ready.

Already on the afternoon of April 14 some Danish sail were signalled from the Laböer trenches near Kiel, steering west, the wind blowing stiffly from the east.* These vessels anchored for the night at the mouth of Eckernförde Bay, about four miles from the outermost battery. The squadron of Commodore Palludan consisted of the first-class line-of-battleship, *Christian VIII.*, flagship, 84 guns; the frigate *Gefion*, Capt. Meijer, 46 guns; the cruiser *St. Croix*, 16 guns; and the steam gun-boats *Hekla* and *Geiser*, each armed with two heavy mortars and some 24-pr. guns, the former vessel being of 200 horse-power, and the latter 160 horse-power. It is asserted that, in addition, another gun-boat and three transports took part in the fight. It will therefore be seen that according to the ideas of forty years ago the Danish squadron was a somewhat formidable one, consisting of some 150 guns and about 1,000 men.

On the following morning at 4 A.M., being Easter Thursday, a day of great religious observance in Scandinavia, the weather fair with an easterly wind, *i.e.* blowing on to the shore, the Commodore decided upon making the attack in the following manner, in explanation of which we quote his own words:—

“I myself intend to move up with the flagship along the line

* Brother of the late Prince Consort.

† Some reports refer to a third battery. Thus Sub-Lieutenant Baron Wedel-Jarlsberg's report states that there was a lower battery armed with six 18-pr. guns, so that the B battery had ten guns. However, neither Commodore Palludan nor the German reports corroborate this. Baron Wedel also states that there were a number of guns mounted along the shore.

indicated in the accompanying sketch,* and take up the position L, whilst the frigate takes up her position at F. The other vessels are to keep clear of the A battery, advancing up the fiord along the line indicated, and shell the B battery. However, both the steam vessels have strict orders, the *Hekla* as soon as signalled by the flagship, and the *Geiser* when signalled by the frigate, immediately to come to their assistance, and take them in tow."

At 7.30 the squadron was under weigh, standing in under easy sail. The A battery immediately opened a hot fire, which was quickly responded to by the flagship as she passed. This vessel anchored to the W.S.W. of the A battery, close to the south-westerly shore, and thus N.E. of the B battery, under two bower anchors and a kedge anchor with slip aft, her broadside thus fairly commanding both batteries.

The frigate *Gefion* appears to have anchored somewhat farther ahead, in such a position that her heavy guns could not bear fully upon the battery; the report is, however, not clear upon this point.

The combat now began in real earnest; the firing continued incessantly, being only interrupted now and then by the imperative necessity of allowing the smoke to clear away in order to see to aim. The Danes partly fired broadsides and partly independently, shot upon shot when the enemy showed. We will now quote the statement of the Danish commander.

"The A battery was soon silenced" (although we know it was armed with heavier guns than the ship), "but the southern or B battery was directing a tremendous fire upon the *Gefion*, and our gunners, in spite of all efforts, were unable to silence it.† Presently Captain Meijer signalled to the steam gun-boat *Geiser* to come to her assistance so as to swing her stern up before the wind, that a kedge anchor might be run out, and her broadside brought to bear upon the battery. But hardly had the gun-boat brought the hawser home than it was carried away by a shot. I observed this, and presently also that Captain Meijer intended to get his vessel towed out by the stern, a plan of which I fully approved, as he had previously signalled for reinforcements in order to continue the battle. But it seemed as if all luck, which in part affects the result of all battles, had completely deserted

* This sketch never reached Copenhagen, having, no doubt, been retained by the victors. The sketch illustrating this paper has, therefore, been drawn from the reports of others.

† Might not this have been done by slower firing and surer aiming?

us upon this day, as at the same moment Captain Wulff had got the second hawser on board he let it go again, signalling that 'the *Geiser* was so damaged, that she would have to be repaired in port.' I therefore gave orders to withdraw from under fire."

It would now seem that the large number of troops on shore had at last convinced Palludan that a landing would be impossible, and he then, but too late, signalled to the *Hekla* to come in and tow his ship out. To this order the *Hekla* replied: "Badly damaged."

"There was now nothing to do," continues the Commodore, "but to attempt to warp the ship out of fire. This attempt promised well, the breeze being still light; but during the operation it freshened, and the frigate *Gefion* reported 'damage to running gear; unable to make sail,' with a request for surgeons. These were sent, together with seventeen men, and the warping was continued under a steady fire. It was now past noon, and, in spite of all our efforts, we had only succeeded in destroying one gun in B battery.*

"I then despatched Lieutenant Ulrich ashore, offering to cease firing upon the batteries if the vessels were allowed to move out; otherwise I would destroy the town."

The Germans received the messenger, and at 1 o'clock the firing ceased. A calm, remarkable by contrast, now succeeded. For three hours Lieutenant Ulrich was detained; the time was employed by the Germans in repairing the batteries, and bringing up field artillery from Kiel, which was mounted, according to the Germans' own statements, with great care and skill upon the heights just south of the town, whence the decks of the ships could be swept with 12-lb. shells.

The towing of the *Gefion* proceeded but slowly on account of the increasing wind, whilst it seems that all the while the negotiations lasted the flagship remained inactive. At 4 o'clock the Danish emissary returned with the answer, "that the cessation of firing could not be agreed to. If the town were bombarded, the act would be one of vandalism; but the mayor had declared on behalf of the town that, if the welfare of the country required it, the horrors of a bombardment would be confronted." At 4.30 the firing with red-hot shot was resumed from the shore with renewed vigour.

Commodore Palludan continues:—

"My vessel lay in such a position that I could fire broadsides

* To this German reports contain no reference.

into the batteries, and throw shells into the town from my stern guns, the wind being on the port quarter (i.e. N.E.), so that if I chose to abandon the frigate, I could bring the ship out of fire by setting sail, hastily weighing anchor, and standing to the southward. I was compelled to proceed with the execution of this plan when the firing with red-hot shot began, and more artillery was seen moving up.

"I ordered fire to be opened upon the latter with my starboard guns, and upon the town with the stern guns, at the same time setting sail; but I had hardly succeeded thus far, and got the vessel under weigh, when a shell fire was opened upon us so fierce that in a few minutes all the lower running gear was shot away, and the ship, being unable to tack, drifted ashore at X, south-east of the B battery, only a few hundred yards distant from the latter.

"Already, before the ship went ashore, I observed the *Gefion* striking her colours, and presently Sub-lieutenant Michelson also brought Captain Meijer's report that he had been compelled thereto, being unable to defend his ship any longer, and his dead and wounded augmenting every moment.*

"Half an hour later, when I was forced to renounce all hope of getting the flagship off, and every shot was taking effect either upon rigging or hull, red-hot shot and shell pouring upon us, killing and wounding many, I learnt that fire had broken out in five places. It could certainly not have been extinguished except by the efforts of the whole crew; so, having personally ascertained these facts, I called a council of officers, and all of us being of opinion that to continue the fight was only waste of lives, as we were utterly *hors de combat*, I gave the sad order at about 6 o'clock, with a heavy heart and deep emotion, to strike the colours."

The bottom valves were now opened, and the fire taken in hand. This was in a fair way of being got under, when orders came from the shore that the commander and the crew were to leave the ship at once, otherwise the firing would be resumed. In vain Palludan asked for delay, and happily—we say that from the heart—the Danes were thereby saved the humiliation of seeing the German colours float from a Danish masthead.

The second officer was left on board to superintend the disem-

* Sub-lieutenant Wedel-Jarlsberg, of the *Geiser*, adds in his report that the *Gefion* had not a single charge of powder left when some eighty shots had been fired per gun. Curiously enough, the commander makes no reference to this.

barkation, and Palludan urged upon him to have a care for the welfare of his men.

"I then," he concludes, "left my brave officers, crew, and the ship which I had ever commanded with such pride."

Ashore Commodore Palludan was received by the aide-de-camp of the Duke of Saxe-Coburg-Gotha, to whom he was now presented, and who received his sword. However, both Palludan and Meijer's* swords were returned to them the next day.

The Danish commander was then conducted to a room in which he awaited events "with great anxiety."

"At dusk," continues the report, "I heard some shots, and I was told that they proceeded from the *Gefion*, whose captain had not yet left her. Everything was again quiet, when suddenly there came a rapid firing of guns, and then a terrific explosion. It now became evident to me that it was the *Christian VIII.* which had blown up,† and my ardent prayer to God was that the loss of life might be small. Alas! this was not so, the loss being very heavy." The most terrible anxiety must have been felt during this prayer.

The number of killed on board the flagship was six officers, several non-commissioned officers, and about 150 men, there being also many wounded.‡ Sub-lieutenant Ulrich, bearer of the commander's proposal for a truce, was conducted ashore a prisoner, but escaped during the confusion following on the explosion, and succeeding in obtaining a peasant's dress, rode with the German transport waggons through Schleswig, and reached Als in safety.

The losses of the frigate *Gefion* in the battle were 25 killed, 28 severely wounded, and 80 slightly wounded, whilst the *Hekla's* loss was 2 killed and 5 wounded. The loss of the *Geiser*, on the other hand, although hotly engaged, was only 1 killed and 9 wounded. It is curious to note that up to 5 o'clock this ship had sustained but little damage and loss of life.

One brave officer, Baron Finn Wedel, senior lieutenant on board the flagship, had a miraculous escape. He had accompanied the Commodore ashore, and returned to the vessel in order to assist in the disembarkation, but seeing a flame shoot up from the main-deck near the powder magazine, he hurried as many men as he could into his gig just as the ship blew up. With remarkable presence of mind he himself jumped overboard, dived, rose up

* The statements in German newspapers that the latter shot himself are untrue.

† At 7·30 P.M.

‡ Another report states 80 dead.

again, dived again to save himself from falling beams and splinters, and finally swam ashore, and, proceeding direct to his chief, confirmed the latter's too well-founded surmises.

Commodore Palludan concludes his report by expressing satisfaction with officers and crew, regretting the terrible calamity, while requesting that his conduct be examined into by a court-martial. The report is dated Rendsborg, April 8, 1849.

One of the officers on board the *Christian VIII.* asserts that the ship could have been saved; the fire, in fact, had already been got under (this is corroborated by the report of the Commodore) when a German transport boat came alongside to hoist the colours of the victors, and the senior captain, Krieger, who was distinguished for his resolution and courage, proceeded straight to the powder magazine, and, firing it with his own hands, blew up himself with friends and enemies rather than endure the dishonour! Indeed, it is otherwise almost impossible to explain how the fire could have spread so quickly to the magazine, whither its progress was, as a matter of course, most jealously guarded. We may accept this statement as correct. Such actions are diversely judged—not always leniently. We, for our part, express the warmest admiration for the deed of the heroic Krieger.

It is greatly to the credit of the Germans that they hastened with readiness and courage on board the wrecked hull, to save those who were now enemies no longer; and, in fact, many became themselves victims to their rashness, among them being the "Ober-Feuerwerker" of B battery, which we know decided the battle. The town of Eckernförde, by the way, did not suffer much, the southern part alone being somewhat damaged by the stern guns of the flagship.

That the jubilation was immense throughout Germany over this victory—the first naval victory in modern German history—was only natural and justifiable. A few battalions of troops, bred in the interior, who had never even seen the sea before, much less the proud "wooden walls of Denmark," and who had, moreover, to fight them with only a tenth part of their opponent's artillery, had gained a splendid victory in a few hours, destroying the largest line-of-battle ship in the Danish navy, and taking the great frigate *Gefion*, with minor vessels—the handsome *Gefion*, the pride and boast of every sailor in the Danish navy. Full of praise were therefore all German accounts of this victory by their artillery of only twelve guns,* which achieved "this beautiful result;" of joy

* Increased, however, to more than twenty during the battle.

at viewing a vessel despatched with so much hope lying wrecked on the German shores, and of the *Gefion* flying German colours. All this and much more are variations upon the same theme, and the expressions of a just delight in victory, a feeling proper to every sailor. And this victory had been attained with the loss of *one killed and 13 slightly wounded* ! An example without parallel in history.

Such was the second Easter Thursday catastrophe in the annals of Danish naval history ; the first being, as every Dane knows with grief, Nelson's terrible victory at Copenhagen, April 2, 1801.

Great as the loss was to Denmark materially, it was far greater morally. The prestige which from time immemorial had surrounded the Danish fleet and Danish heroism, was for ever dispelled, and dread of the Viking at sea was changed into a feeling of self-reliance and daring. That the Danish people should feel their calamity with intense sorrow was but natural. However, misfortune is the touchstone of courage. This has not been lost ; therefore let us hope for more favourable events. We cannot, however, abstain from giving one pathetic example of antique faith and love of country. Holstein, the old admiral, then ninety-one years of age, who himself had fought Nelson on that unhappy Easter Thursday, on learning the sad news of Eckernförde, was unable to restrain his tears, and the old warrior expired bemoaning the calamity that had befallen his beloved country, which he was too old to serve any longer.

It is not to be denied that the Danish ships at Eckernförde suffered accidents impossible to be foreseen, each of which in a great measure contributed to the fatal result ; but it is also equally true that the impartial eye of the naval student will detect many false steps, both as regards the planning and execution of the attack. We will attempt to point out a few, even at the risk of having the well-known and true adage launched at us, "It is easy to be wise after the event."

What, in the first instance, was the object of the expedition ? To destroy the German shore batteries ? For this a smaller force would have sufficed. To accomplish an object in war larger means should not be employed than can be brought to bear, nor a larger force than can be developed. What would be thought on shore of sending an army corps to capture an outpost ? Neither can it be said that the destruction of a couple of shore batteries, unless with other ends in view, ranks as a strategic undertaking.

Again, was the object to destroy the town of Eckernförde ?

But would such a petty town, with no commerce and having no strategic value, be worth such great preparations and risk, the object being solely the destruction of the town. Moreover, had it been the intention of the Danes to effect a landing after silencing the batteries, we naturally presume that there would have been troops on board for such a purpose, or rather an army corps for landing purposes. The truth is, there were only 200 troops with the fleet, or, to quote the commander's own words, "**a company of soldiers in three transports in tow of the *Geiser*."** And these men were left at the mouth of the bay! Assuming even that the Danes had had a corps of 2,000 men, even this force would have been without protection in an open city, and entrenchments would have been required in the face of an ever-increasing enemy. In fact, under these circumstances, the position of the corps would have been very risky, with an open bay in the rear, where the wind and sea at any moment might forbid embarkation, and a superior enemy in front and on the commanding heights around.

We consider, therefore, that there were many serious objections to the whole enterprise, objections for which, however, the Commodore was in no way to blame; but its execution may, after calm consideration, be open to criticism.

Was it, for instance, consistent with care and caution to run these heavy ships into such a maritime *cul de sac* with the wind dead astern, and with crews but little experienced in bombarding a battery, which was fully demonstrated by the circumstance that out of some 8,000 shells fired only 200 were found in and around B battery?

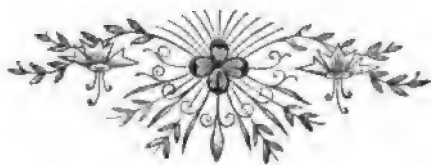
To our mind the better course would have been for the steam gun-boats, though the paddle vessels of that day were much exposed, to have crept in slowly and cautiously in advance, with their guns bearing upon the batteries more steadily and with a better aim, until they had succeeded in silencing them, and then to have effected the landing of troops and sailors, if desired, with all despatch, employing every craft in the squadron. Or if the heavier ordnance of the larger men-of-war were preferred for the undertaking, we think that the steam vessels should never have been brought under fire at all, so that they would not, as in the case in point, have been unable to render assistance when needed. Had the *Hekla* not been *hors de combat*, no doubt the flagship at least would have been saved. At all events, we ask with confidence: "Should, in any case, sailing vessels have passed the line between the batteries and entered a narrow *cul de sac*, where they

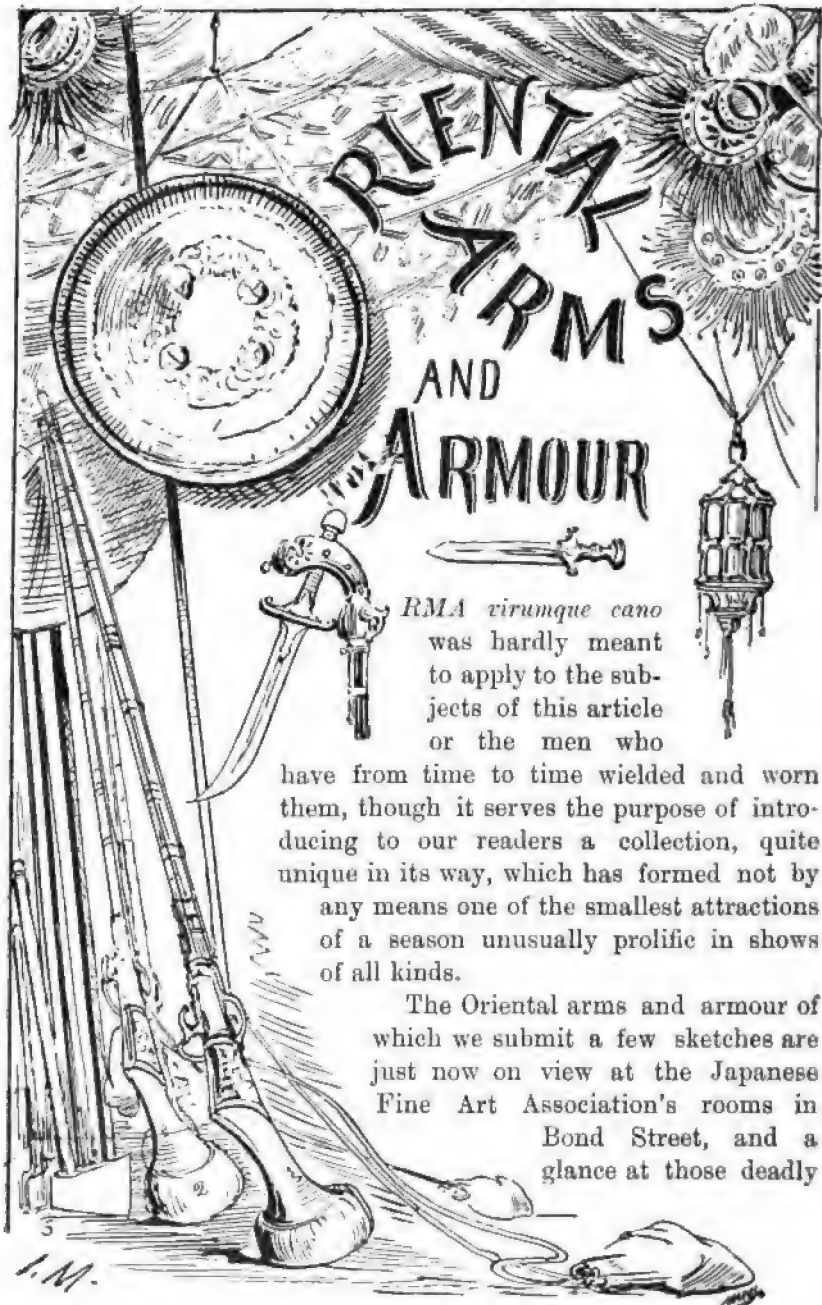
were unable to weigh anchor, and where the steam vessels also were greatly exposed when attempting to get away, guns being pointed upon them from three sides?" We answer unhesitatingly, "No."

The negotiations on shore during the hours of noon were likewise of great benefit to the Germans, as they were in that long interval able to repair the batteries and mount their guns in better positions, as well as dig pits in which the red-hot shot were heated, for the latter virtually decided the day, although none were over 18-lb. The Danes gained little by negotiation; quite the contrary. He who parleys in such cases already confesses himself half vanquished.

It would seem that the German guns were well directed; for instance, the *Geiser*, in the short time she was under fire, received thirty-six shots in her hull, ten of which entered at the water-line, and one disabling her machinery.

Our task is at an end. We have attempted to render a true account of this unfortunate action, to the best of our ability, and we have frankly expressed our opinions, which will doubtless be shared by other impartial critics.





weapons and the armour so deftly designed to resist them seems to open up a new vein of thought more blood-curdling than a whole gallery of war pictures could possibly be; since, peacefully posed as they now are against a background of maroon baize, they in many cases have played an active part in tribal strife, patriotic warfare, or cold-blooded murder.

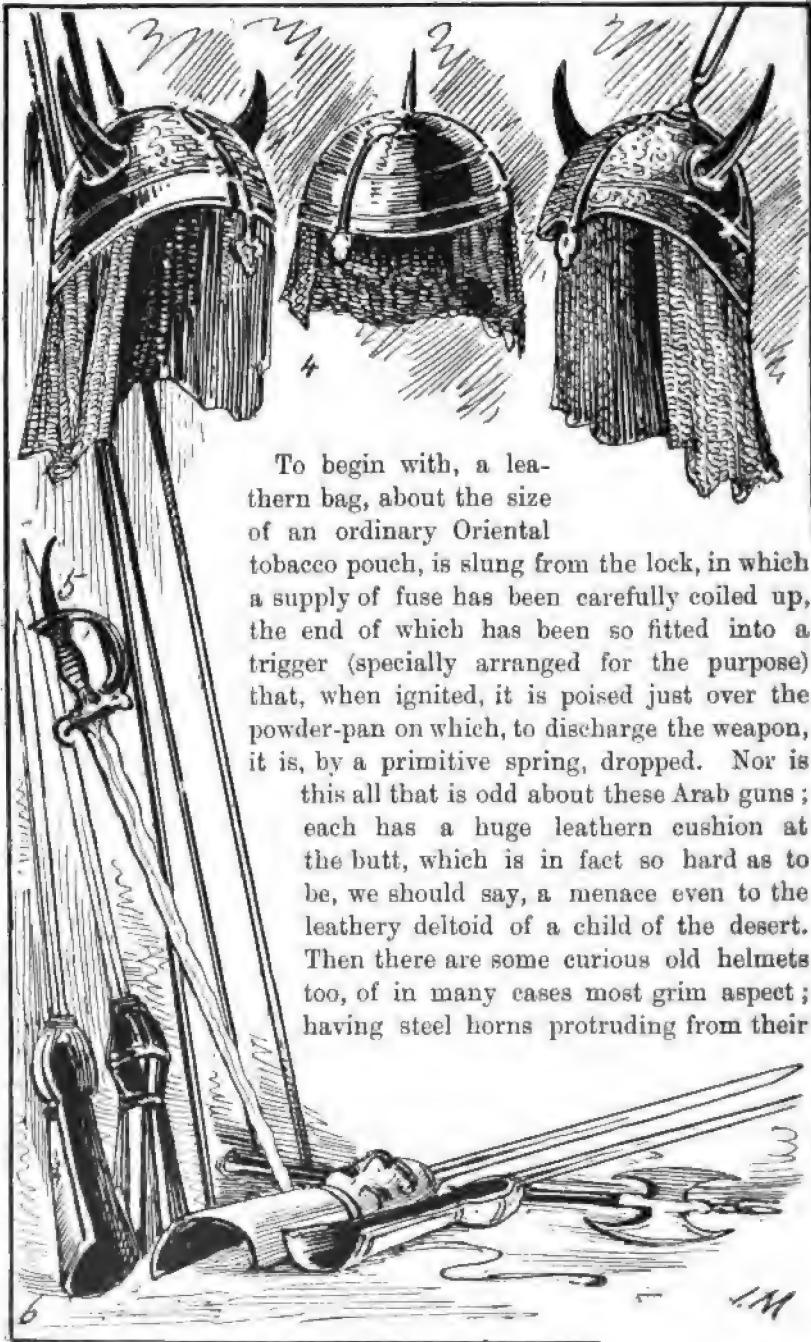
Intensely interesting as this collection is as an exhibition of weapons of the most exquisite workmanship and artistic design, many of which date back to remote periods, and have been carefully collected from out-of-the-way corners of the East, one's interest is enhanced, to a very great extent, by the knowledge that they have played their deadly part in carrying out the aims and ends, not only of the robber and hireling, but of monarchs and other leaders of men who have swayed the destinies of nations.

Probably the weapons which, for their absolute beauty, are likely to attract the visitor at a glance are the two or three elaborately-ornamented daggers, Nos. 44, 45, &c., which are here amongst other curios on view. Their handles are of jade, most exquisitely ornamented with diamonds, emeralds, and rubies, connected by filigree inlaid gold-work, by means of which floral designs of a charmingly irregular and most artistic kind are produced, and which lead up in a subtle, insinuating way to the terrible beginning and end which they are meant to serve in the shape of blades of formidable dimensions.

Lying prone and powerless now, just below this case, are to be found (No. 46) a couple of blunderbusses which would have been a credit to the earliest days of "stand and deliver," when travellers and their escorts had to hold their own against knights of the highway all over the world, were they intercepted by the brigands of the East or footpads of the West.

The Indian ornamentation engraved on the bell-shaped barrels of these quaint weapons and the inlaid brasswork on their broad, flat stocks is really remarkable, not so much for its high finish as its bold broad effect. They are of Cabul origin, where, no doubt—as well they might—they at one time spread dismay around.

While on the subject of matchlocks, one cannot do better than touch in passing on the most interesting collection of Arab guns to be seen at this exhibition. Many a time and oft has the writer of this article camped out with those black, bernous-clad wanderers, several of whose long ornamental guns may now be examined in Bond Street. There is a charming simplicity about these particular weapons, which puts even the clumsy flint-lock in the background.

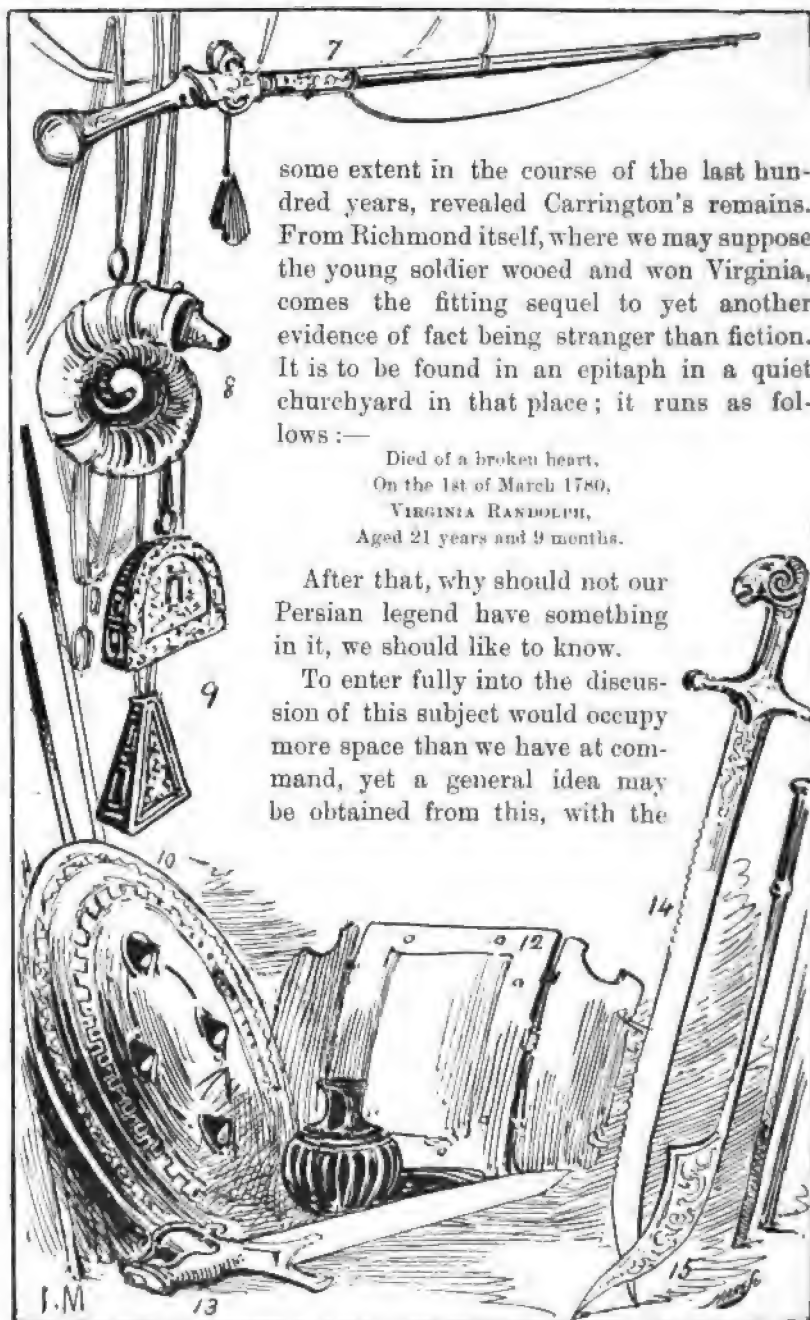


To begin with, a leathern bag, about the size of an ordinary Oriental tobacco pouch, is slung from the lock, in which a supply of fuse has been carefully coiled up, the end of which has been so fitted into a trigger (specially arranged for the purpose) that, when ignited, it is poised just over the powder-pan on which, to discharge the weapon, it is, by a primitive spring, dropped. Nor is this all that is odd about these Arab guns; each has a huge leathern cushion at the butt, which is in fact so hard as to be, we should say, a menace even to the leathery deltoid of a child of the desert. Then there are some curious old helmets too, of in many cases most grim aspect; having steel horns protruding from their

sides, and being surmounted by every conceivable device in the shape of spike and trident. Some of these are Persian, and some old Indian; all being in one way or another most elaborately decorated, some exquisitely chased with gold, others with silver, many with both. There was one, however (Persian lacquer on iron), which was not only interesting as a work of art, but which is one of the very few now to be seen on which, embossed or engraved, is the story of the warrior's life to be found. In this particular case the colouring of the lacquer-work is most brilliant, lit up considerably by illumination in gold; No. 1 in the catalogue, it deservedly holds first place, since its story, as far as can be traced, is a curious one.

A young, and, of course, beautiful Persian girl had two admirers, one of whom she loved; the other the young lady, equally as a matter of course, detested. A local magician cast a spell over the young couple, which could only be broken by the hero of this love story being able to place before his inamorata the left eye of the villain who aspired to her hand. This, it appears, he eventually did, and since the process of extraction was led up to by a most bloodthirsty combat between the rivals, it may be easily understood that the now one-eyed villain succumbed to his injuries. The betrothed pair were then united, and all went, as that magician in his marvellous wisdom had foretold, as merry as a marriage bell. This legend is emblazoned not only on the helmet but on the shield and gauntlet of the victor. The story at least gives additional interest to what, quite apart from any other consideration, is a most interesting example of semi-barbaric art, nor do we see why the story thus told should not have some basis of truth in it.

Take, for instance, a discovery actually made only a few weeks since near the falls of French Creek, Pennsylvania, in which a rusty sword, found by certain explorers in a cave thereabouts, led to further investigations into what turned out to be an "o'er true tale" of how love's young dream had been cut short by war; for not far from the rusty sword the bones of a man were found, still incased in some tattered fragments of uniform, and by the side of these remains was a glass bottle, in which was a faded manuscript, addressed to Miss Virginia Randolph, of Virginia. It was signed Arthur L. Carrington, and went on to say that he was with Washington at Valley Forge in 1778. One of a foraging party, it may be supposed his retreat had been cut off by the British, and to avoid capture he had fled to this cave where his bones were recently found. Exit therefrom had been prevented by the falling in of some rocks at its dark entry, which, sinking to



aid of the sketches which accompany it, to show what a varied and interesting collection of Eastern arms and armour has been made: a collection presided over, it may be mentioned, by a gentleman who is a perfect enthusiast, and to whose courtesy every visitor is indebted for information which could not possibly be otherwise obtained. Not only is this "guide, philosopher, and friend" himself a traveller of great Eastern experience, but arms and armour appear to be with him so much a speciality that one enjoys in no ordinary way the display of weapons which have, mainly through his instrumentality, been thus brought together. Here are jumbeyas of every shape and size, the jumbeya being an Arab dagger, on which the ingenuity of the maker, as far as the hilt is concerned, is displayed in every conceivable way. Rhinoceros horn, inlaid with gold, silver, or jewels, coins curiously worked in with other metals; in fact it would be wearisome to dilate too long on the make of the blades or the colour and qualities of the handles of each. Over these, again, are Persian Khunjurs, with jade hilts, and Peshkubs, with exquisite agate handles, while hunting-knives of all shapes and sizes of course abound.

By the way, there is one interesting curiosity, dug up some time since in Golconda fort, the five rivets on which tell a tale of the five battles in which it has been used. It is the hilt end of a most antique sword, the gold chasing on which may yet be traced. Then there are Deccani daggers and Daghestáni kamas, tulwars from Rajputána, the chasings (in silver) on which are sometimes most beautiful; there are Persian scimitars and Indian Damascus blades, Hyderabadí tegas, and a tira from the Affridi Hills far away beyond Peshawar.

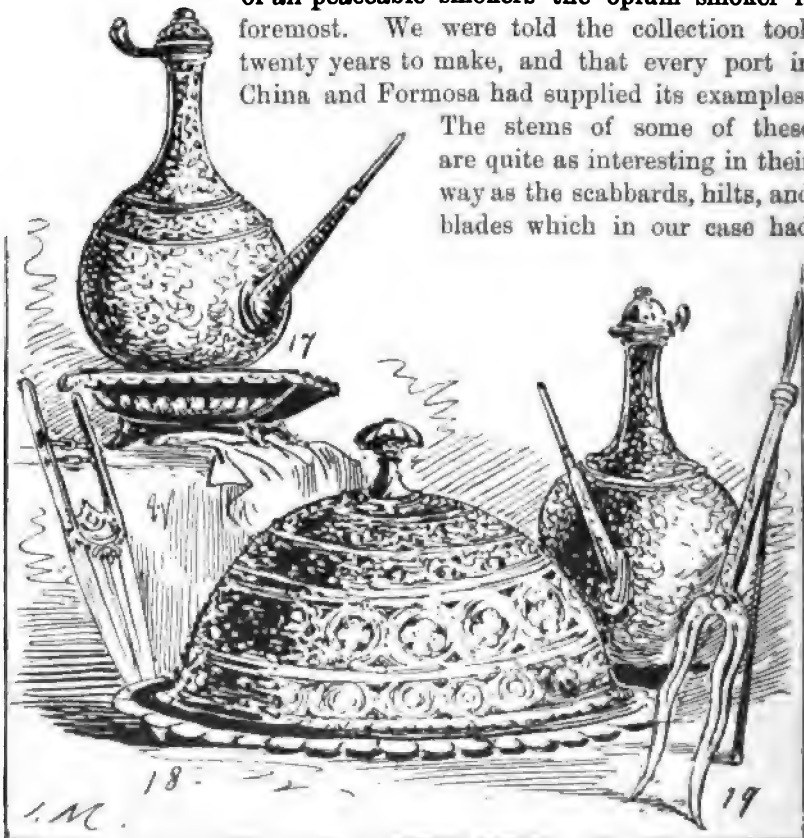
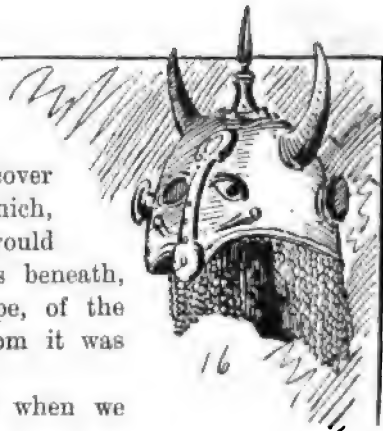
Then there are swords on which texts from the Koran are engraved, so as to sanctify, as it were, the gashes which they make; and there are battle-axes too, double and single, which lead one to think rather of the days of chivalry at home than of the far East. Amongst other curiosities, I came across some heads-men's swords; wonderful weapons, with blades which look capable of anything, and which, could they but speak—but no; heaven forbid!

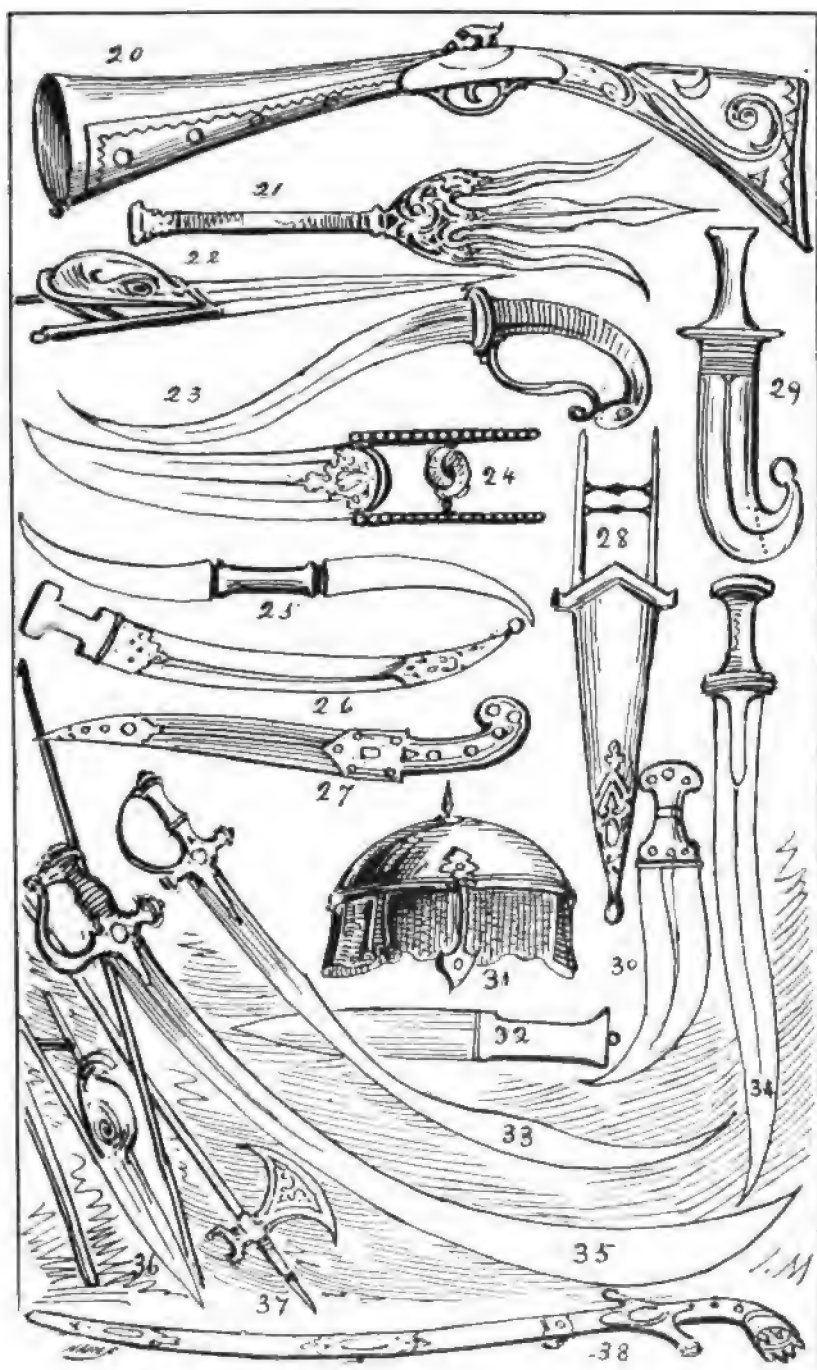
There is not a corner which is not occupied with a spear, or javelin, a mace with a bull's head, or a shield with a legend on it; while there are some of the most curious specimens of the gauntlet-handled sword (in which the hand and arm are completely encased) which have ever been exposed to public view. Besides

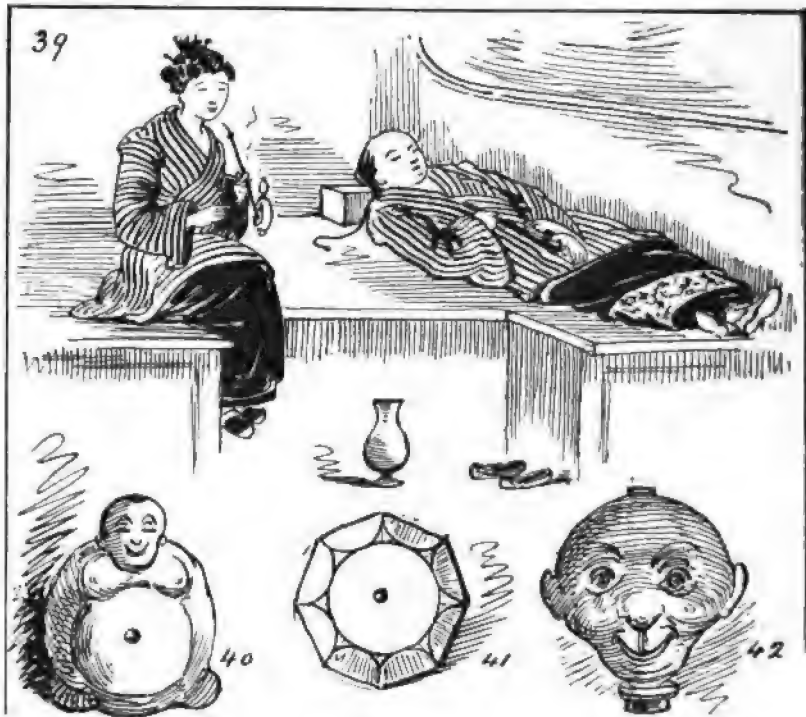
these there are some splendid specimens of old Bidri work, Arab vessels, in which the chieftains perform their ablutions, and one most interesting example of a silver salver and cover of most perfect filigree work, which, though it would not let in the air, would let out the aroma of the viands beneath, much to the delight, let us hope, of the dusky hungry warrior before whom it was placed.

And then ; ah, yes, then, just when we had had our fill of gory weapons, we came across a curious termination to this long comment on war in the shape of a unique collection of pipes ; pipes of peace surely, since of all peaceable smokers the opium smoker is foremost. We were told the collection took twenty years to make, and that every port in China and Formosa had supplied its examples.

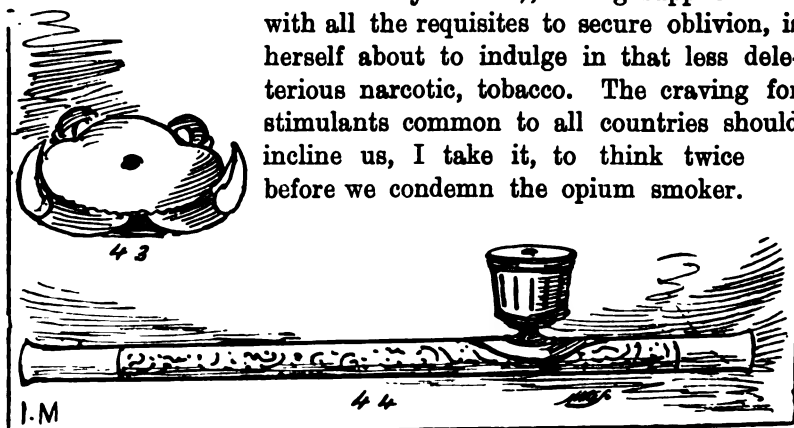
The stems of some of these are quite as interesting in their way as the scabbards, hilts, and blades which in our case had







preceded them. Shark-skin, tortoise-shell, ebony, and ivory, to say nothing of precious metals in some cases, having been used in their manufacture. There is also an interesting model of an opium smoker's home, executed in Tientsin clay. The Chinaman has just taken those few whiffs which are to waft his weary spirit to the land of delightful dreams, while his better half (or female attendant—who shall say which?), having supplied him with all the requisites to secure oblivion, is herself about to indulge in that less deleterious narcotic, tobacco. The craving for stimulants common to all countries should incline us, I take it, to think twice before we condemn the opium smoker.



Let us first look round at that crime which ever follows in the wake of intemperance at home, and we may find that he who, curiously combining the fool and the philosopher, seeks solace in opium may yet stand out in bright relief if placed side by side with the drunken father and the wife-beater. It was, at least, with these salutary reflections we left that interesting exhibition of Oriental arms and armour, to which had been added the collection of opium pipes we have just referred to—

Glave of warrior, shirt of mail,
Rusty and short without any tail,

being thus curiously mixed up in our memory with Celestial dhudeens.

- 1.—Old shield, cut steel, ornamented with gold coins.
- 2.—Arab guns.
- 3.—An old Eastern battle-axe.
- 4.—Persian helmets.
- 5.—Darashai (Persian).
- 6.—Pata gauntleted sword (one with face) (Indian).
- 7.—Arab gun.
- 8.—Arab powder-flask.
- 9.—Arab cartridge-boxes.
- 10.—Splendidly carved brass shield.
- 11.—Hooker bowl.
- 12.—Charaina breast-plate.
- 13.—Sword found in Golconda fort.
- 14.—Saw-bladed darashai.
- 15.—Gourka kukri.
- 16.—Old Persian helmet (lacquer). Strange legend attached.
- 17.—Bidri work, ewers and basin.
- 18.—Silver salver and cover used by chieftains.
- 19.—Indian forked weapon.
- 20.—Kubuli gun "Jezail."
- 21.—Forked Indian weapon.
- 22.—Turóp.
- 23.—Old Persian watered blade.
- 24.—A khattár.
- 25.—Double-bladed dagger (Persian).
- 26.—Persian dagger.
- 27.—A jade tulwar inlaid with precious stones.
- 28.—A khattár in sheath.
- 29.—A jumbeya.
- 30.—Tulwar set with jewels.
- 31.—Persian helmet.
- 32.—Old chuni.
- 33 and 35.—Headsmen's swords.
- 34.—Hydrabad sword.
- 36.—Bird's head turóp.
- 37.—Old Eastern battle-axe.
- 38.—Very old Indian sword, inlaid with jewels.
- 39.—Curious Chinese model, opium smokers.
- 40, 41, 42, 43, 44.—Curious carved opium-pipes.

Sunny Memories from Las Palmas

(GRAND CANARY).

By CARR STEPHEN, B.C.S.

II.



THE prosperity of Las Palmas has surpassed the expectations of her warmest friends, and the "children of the soil" have contributed by their labour largely to it. I do not suppose, however, that there are half a dozen Spanish capitalists who have done anything to claim a share in it.

The great motor, capital, has not accumulated in the hands of the Canarians in such quantities as to enable them to direct the course of trade; those who have money have no spirit of enterprise, and their mutual distrust seems to keep apart even the few who could co-operate for the advantage of their country. The commercial prosperity of the "Fortunate Islands" must therefore, for a long time to come, depend on the labour of her children and the capital of foreigners.

There are ten British companies of ship-owners whose vessels visit Las Palmas either regularly or at uncertain dates; the vessels of other nationalities do not represent a tenth of that figure.

Down to the year 1882 the steamers brought out only mails and cargo; but the receipts from passengers now form a fair portion of their gain. To meet the wants of the vessels in fuel alone the coal depôts have to keep in stock about 12,000 tons of coal, and for their shipment the coaling companies employ twenty lighters and six tugs of great power.

Of the exports which mainly contribute to the wealth of the island the first place is still held by cochineal, although its present condition is one almost of collapse. The introduction of aniline dye into the European markets has almost stopped the demand for cochineal. It is admitted that as a dye cochineal is far superior to its rivals; but the cheaper material is supposed to "answer," and the better article is nearly out of the market. In 1886 the value of the cochineal exported from Las Palmas amounted to £78,525, quite a third lower than the amount of the previous

year, and in price there was a falling off of 2d. in the pound, *i.e.* it fell from 1s. 4d. a pound in 1885 to 1s. 2d. in 1886. In 1887 cochineal was sold under cost price. In 1860 the trade in cochineal saw its best days; it was sold for a trifle over 4s. per pound. Every article of export was more or less neglected for the cultivation of cactus; even maize, the most important article of food of the islanders, was imported in preference to land being taken up for its production. A speculation fever seized all classes in the island, and their one idea was to push on the growth of cochineal. There was a sudden improvement in the demand for labour, and buildings sprang up in the most neglected parts of Las Palmas as if by the stroke of a magician's wand. Then came a falling off, the like of which had not been known in these "Fortunate Islands." There is hardly any demand for cochineal to speak of, but still large quantities of the dye are annually produced in the hope that a time may come when the inferior dye will cease to compete with it. In 1885 the price of cochineal rose in the market, and raised the hopes of those who are still looking forward to a revival of this trade; but disappointment followed, and ever since the selling price of cochineal has been under the cost of production.

Tobacco is expected to take the place of cochineal in the perhaps distant future. In 1885 about £20,000 worth of this article was exported, the Spanish Government being the largest purchaser. The drying and preparing of tobacco leaves is an industry in itself. Once upon a time tobacco leaves were exported for Havanah manufacturers; but the intelligent Canarians have acquired the necessary knowledge and experience, and cigar manufactories have sprung up in the island, and they command a brisk sale for their manufactures. About ten such establishments carry on operations in this department on a comparatively large scale, and they turn out cigars for which there is a demand in Spain, Germany, and South America. The Spanish Government, with the view of creating a monopoly in tobacco, purchased all the cigars manufactured in the island and thereby gave the produce of tobacco a strong impetus, and the trade-wise fondly hope that before long tobacco will be a source of wealth which will rival the glories of cochineal. The factories of Messrs. Miller & Co., and Don Juan de Leon y Castillo turn out the best cigars and command the best prices in the markets.

Sugar would have been an important item of Canarian exports, if the financiers of Spain had not handicapped it with a double tax. Mr. James Miller, whose intimate knowledge of all mercantile

questions constitutes him an authority on the subject, was of opinion that the cultivation of the sugar cane and the manufactures of sugar would be one of the most important industries of the island if they were relieved of the heavy tax under which they now suffer. The entire tax is equal to the price at which sugar is quoted in European markets. The sugar factories, which could easily turn out almost double their present produce, work only for a few months in the year and are idle for the rest of the term. Demand for Canary sugar exists in England, France, and Holland; but the manufacturers under the present condition of taxation do not consider it possible to produce sugar for foreign markets. The factories of Arucas are worked by steam, and could crush 120 tons of cane a day with ease.

Rum is distilled all over the island, but the best is produced in the distillery of San Pedro, the property of Signor A. Gourié. There is a fair demand for it on the western coast of Africa, and the quality of the machine-made rum is considered equal to that of Havanah.

Cattle varying in value from £8,000 to £15,000 is exported annually to Spain. The demand has greatly increased, and Canary bulls are greatly prized by Spanish judges. The breed is free of Spanish strain, and the Canary bulls are considered superior to those of Spain for bull-fights.

Wheat, maize, and pease are grown here in large quantities, and with very little trouble a fair harvest is obtained from the land. When the produce is abundant it is exported to Cuba, but enough is always reserved for home consumption. Sometimes, when the land is taken up for the produce of more valuable articles of export, such as cactus for the rearing of cochineal insects, or cane for sugar and rum, grain is imported from Morocco for the wants of the island. Maize is the staple food of the people, and maize flour (*gofio*), with onions as a flavouring, may be said to be the food of the labouring classes. The annual produce of cereals in Grand Canary is estimated at £40,000.

The demand for potatoes and onions is fairly large, and extensive orders are received for them from Spain, England, and West Africa. In 1887 the export amounted to £5,880. With more certain communication with the purchasing countries improvement in the supplies will be certain.

There has been a sudden increase in the export of bananas, and we believe last year it reached 24,000 bunches, their estimated value being £35,000. The largest purchasers of this fruit are

French and English merchants ; but there is justice in their complaint that the picking and packing of bananas is carelessly done, and the supplies are damaged in the voyage. The shippers on the other hand complain that the uncertainty in the arrival of steamers is disappointing, and a certain amount of hurry in the packing and dispatch of the supplies is unavoidable, and damage naturally follows. The leading exporters of bananas are aware of the fact that the producers remove the fruit from the trees before they have grown enough to ripen by keeping. More care in picking and packing the fruit, with a little more certainty in the arrival and departure of steamers, is all that is wanted to make bananas a lucrative item of the export trade of Las Palmas.

According to the best authorities on the subject, almonds have only to be more extensively cultivated in Grand Canary to become a paying article of export. Those now produced are readily sold at a fairly remunerative price, *i.e.* at £2½ per hundredweight. The export in 1887 amounted to £6,000, but I was informed that double that quantity could be easily produced with a little care in the cultivation. New York sends orders which there are not enough to satisfy in the market. The old trees are never replaced with younger ones till they die out, and the little care which suffices for the present produce is sufficient evidence that with more attention to the cultivation of almonds a fair business might be done in this article with Europe. I am told, however, that during the last few years greater attention has been paid to this produce in view of the increasing demand for it in the United States.

Canary oranges are about the best fruit of their kind in the world ; they are equal to if not better than the oranges of Malta and Spain, in flavour if not size. They are getting to be better known, and large orange plantations are becoming more common than they were a few years ago. It is admitted by the shippers that they have not as yet learnt the secret of picking and packing the fruit, but the agents who receive the supplies are keeping them informed of their mistakes, and providing them with information as to the lines on which improvements are required. Admitting their own shortcomings, they still complain that the uncertainty in the arrival of ships for the European ports does not allow them time to make proper arrangements for supplies from the producers.

The wines of Grand Canary will before long, thanks to the efforts of English merchants, have a fair share of the public

patronage. I believe a consignment of Canary wine to Europe and South America was made in 1887, and the venture was not a failure; in fact, there are means within the reach of the producers to make this one of the most successful branches of their foreign trade. The establishment of two European wine-producing companies has given a remarkable impetus to the wine trade of the island. The cultivation of grapes is extending, and English firms are employing professional experts for the production of wine. Las Palmas claret has been shipped to India within the last two or three months, and it is not a wild hope that before long Canary will have a large share of the Indian demand for light wines. The well-known firm of Messrs. Miller & Co., who own such large tracts of vine country, should now direct their attention to the growth of grapes and, with the two firms already in possession of the wine trade, help in the development of what one day promises to be the most important export from Canary.

Three hundred pipes of citrons, as an experimental consignment, were sent to England and sold at a remunerative price. Further consignments will now be regularly made, as the fruit is grown with little trouble and at a cost which will always secure to the shippers a fair return for their investments. Tomatoes are being shipped to England, and are sold here at such favourable rates that the article may one day rank with oranges and bananas in the export market. Great difficulty has, however, been experienced in the packing of this fruit, and complaints have reached the shippers that the sawdust of pine trees in which the fruit is now packed is a failure, and that some better means must be adopted to preserve the flavour of the fruit.

The Las Palmas fishery will before long be a source of wealth to the island, although this branch of industry is, like some others, in its infancy. A Spanish company, started two or three years ago to improve the Canary fishery, collapsed under circumstances which only go to improve that a small beginning in a new trade is more likely to succeed than an ambitious one. The company was guilty of gross mismanagement and wasted their resources before they could see their business honestly afloat. A second company also started under inauspicious circumstances, having to contend with a very poor season, went the way of the first. A third and a fourth company are in the field again, and, gathering wisdom from the fates of their predecessors, may very likely succeed. An establishment at Gando will concentrate in that locality the fishery enterprise of the island, and, as Spain is ready to receive as large a

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supply of fish as Canary can send, the trade is likely to be a success, and may be a means of further stimulating the local labour market. Ship-building, which is already a popular occupation of native mechanics, will then improve. It was remarked to me by a seafaring gentleman, drawing my attention to a group of fishing boats riding at anchor in front of the new pier, that "If the fishing company will only consult economy, and not be in a haste to get rich, for every one fishing smack that you now see in these waters, you will see ten."

A few additional remarks on the export trade of Las Palmas may appropriately form the conclusion of this paper. Under the present circumstances, the exports may be roughly estimated at about £200,000; cochineal still leads the way, and is followed by tobacco and fruit; but when we consider that the trade in fruit is not more than four years old, and the wine trade can hardly be said to have taken a place among the exports of the country, the expansion of this branch of trade is a matter of certainty, and is a guarantee of the prosperity of the country. As an undeniable sign of this prosperity, we may notice the marked decrease in emigration, a rise in the price of labour and in the value of land. From thirty vessels a month, Las Palmas now has about one hundred such visitors; the harbour of refuge has yet to be finished, and with its completion a still more prosperous time will set in for the merchants of Las Palmas, which will place it in the front rank of the ports of Spain. We cannot close our remarks without repeating the words of warning communicated to me by our excellent Vice-Consul—"Germany is competing with us in drawing to her ports the trade of Grand Canary, and to some extent she has been successful. While German commercial travellers visit the islands, ascertain their wants, and provide them with exactly the goods they require, English merchants send no agents to the country, and in our supplies and demands we continue in the old groove and take no note of the altered circumstances of the country."

Las Palmas is a free port; the Spanish Consul's *visé* of the bill of health is all that is necessary to admit a vessel into the harbour, and to allow her to land goods and passengers. For the history of the islands the Canarians are indebted to their own countrymen: to my accomplished friend, Dr. Gregorio Chil, to Don Augustin Millares, and Don Jose Quintana de Leon, men gifted with the courage of their opinions, and whom the displeasure of the Church has not deprived of the more tangible blessing of the respect and affection of their countrymen.

Las Palmas was practically deposed from its position as the capital city of the Canary Isles in 1821, but the fiat was not sent forth by Spain till 1833: her population of 23,000 souls has not forgiven their successful rival (Santa Cruz) for the indignity and misfortunes inflicted on Las Palmas. The rivalry and party feeling which now exist between the two islands (Teneriffe and Grand Canary) reflect discredit on both. They have ceased to co-operate; they have not even a spirit of healthy competition; they are suffering from the feelings which grow out of a petty spirit of rivalry; and it was no exaggeration of our Consul at Santa Cruz, a gentleman of judgment and experience, when he remarked to the writer that, but for the fear of Spain, the two islands would have plunged already into civil war.

On the sanitary state of Las Palmas a layman can add nothing to the most interesting paper on "Grand Canary as a Health Resort," read before the British Medical Association by Dr. Mordey Douglas of Sunderland. A portion of that learned discourse may with advantage be quoted here:

"Then, to sum up the climatic advantages of Las Palmas over Madeira and Orotava, they are:—

- (1.) A much larger amount of sunshine.
- (2.) As regards the Atlantic, a drier air.
- (3.) As regards the winds, a drier air.
- (4.) As regards rainfall, a drier air, because of greater rapidity of evaporation, to say nothing about quantity.
- (5.) A much more invigorating climate."

The water supply which comes from Fuente Morales is of great purity, and water pipes have been laid for the benefit of all who can pay for them, the poorer classes getting their drinking water from the public fountains. There is no want of wells in both Vegueta and Triana, but the water is wisely employed for washing purposes only. Here there are hardly any of the "smells" which are the curse of African and Oriental cities; the situation of Las Palmas, the materials of which her streets are constructed, its sufficient rainfall, the industry of its conservancy establishment have hitherto helped its sanitation. With the exception of an outbreak of cholera some forty years ago, Las Palmas has been free from epidemics, and the general health of the place has been all that could be desired. A word or two on the burial scandal is absolutely necessary. If ever this fine city is stricken by fever, those who are responsible for the burial of the poor will have much to answer for. The description of the cemetery given by

Mr. Isaac Latimer should have drawn the attention of the local authorities, for their own credit and for the safety of their town, but in 1888 the condition of the place continued unchanged. The harrowing details of this description I will not reproduce, but the few words on the cause of this "scene of horrors" deserve to be remembered. "I naturally inquired what was the meaning of all this [the disgusting sight that Mr. Latimer saw], and was told that it was the custom of the friends of deceased people to pay a rental for the use of a catacomb, and that when the rent was not paid the body was withdrawn and consigned to this charnel enclosure, which is exposed to the open air without any covering whatever," &c.

If the municipality are above sanitary considerations, in connection with the lives of their fellow subjects, they may have a selfish regard for the reputation of Las Palmas as a health resort.

The manners and customs of the natives of Las Palmas will not lose by any comparison with those of the people of Spain, or, as they are familiarly called, the "people of the Peninsula." Only a few of the more wealthy families of the island keep up correspondence with Spain, and I doubt whether this means of communication is of a practical character or of any advantage to either country.

The Canarians are brave, patient, and industrious, very docile, and would give little or no trouble to their rulers if left alone. The manliness which is noticed in the poorer classes is certainly not very remarkable in the higher. Young men of the upper classes, long past the legal year of discretion, do not consider it any degradation to "sponge" (to use an expressive slang) on their parents as long as they are allowed to do so. When the old people die and the means of living go with them, the young men, rather than take up work in the island, emigrate to Cuba, but without either capital or recommendation, and there they end a wasted life in early death or not unkind oblivion. These young waiters-on-providence never dream of helping the old people with the earnings of their labour; on the contrary, they embarrass them by indiscreet early marriages, and the once flourishing resources of the family (no longer equal to the maintenance of so many unproductive consumers) by degrees dwindle into nothing, and the public view without much sympathy grand names associated with abject poverty.

The men and women of the wealthier classes lead what may be called separate lives. The gentlemen receive and attend to their

men friends, while the ladies receive and attend to their women friends. They even have their separate *tertullas*—social gatherings for the promotion of small-talk and scandal. Private balls and private social functions, such as dinners and *conversaciones*, are hardly known to the “society” of the island. The families which are united by the ties of relationship may, and perhaps do, have exclusive gatherings of a festive character, but *season* festivities are unknown. Sunday is devoted to calls and the exchanges of other social courtesies, but there is not much feasting done at Las Palmas. All this may be due, as I am told it is, to the pecuniary troubles of the leading families, who rather than entertain in a style not worthy of their best days will not entertain at all.

The club of Las Palmas is a fairly successful institution, and English visitors are there treated with marked courtesy. The building itself is large enough for the wants of the members, and a portion of it is still utilized as a theatre and a concert-room. The respectable young idlers of the place flourish here; in fact, there is not an hour of the day, especially of its busiest time, when a crowd of members may not be seen in the entrance hall murdering “the enemy.” To this innocent amusement is sometimes added a pastime not worthy of a people renowned for its traditionary courtesy. I was told, though I am reluctant to believe it, that ladies would not of choice walk past the club during the day, lest they should afford matter for the exercise of the critical faculty of the members. This must be the recreation of young men who will not profit by the conduct of their elders. The club has honoured two local celebrities by hanging their portraits in the card-room. I am told that they are first-rate likenesses, the originals being the Spanish Ambassador in France and the well-known novelist Perez Galdos.

To some of our friends the extraordinary courtesy of the Canarians may not commend itself, when they are told that a white lie is often said for no other purpose than to afford pleasure or to save pain. Under the smallest provocation, facts will be altered to promote good-will in company. In business a Canarian is not over anxious to stick to the terms of a contract, and, if anything can be gained by evading them, he must be a strong man who will rise above such temptation. There is, I believe, a sad want of mutual confidence among the leading men of the place, and it cannot make us wonder that native merchants of influence as a body have still to be created. Native merchants do not generally succeed in the world of commerce; their dealings

with one another are not of such character as to draw the confidence of strangers.

The rich avoid the inconveniencies of the conscription by means which do not speak well for their patriotism. How this freedom is effected I do not wish to explain, but I believe there is not one member of any leading family of the island who is undergoing military training for the service of his country. Let me not for a moment be supposed to reflect on their courage; there is no falling off in that valuable quality. The poorer classes resent this unfair immunity by trying to follow the example of their betters, but when they cannot escape conscription by any other means, they leave their country to be out of its reach altogether.

There is much in the character of the poorer classes which recommends them to our sympathy. They are a fine people, with whom it is almost natural to lead a life of labour. They will work hard and they will work long, but with all their good-nature and inbred civility they will not be driven; they might be easily led. Perhaps they are not altogether singular in their need of the master's eye to secure a fair amount of work. If they are given to idle moments (paid labourers are subject to this weakness all over the world), they are honest and will try to make a fair return for fair wages. Those who have employed Canarian labourers for years speak highly of them, and are perfectly willing to trust to their sense of honour and honesty. All advances are worked off, materials given out for work do not as a rule suffer in their hands, and their employers may command their confidence and services with a little tact.

The form of courtship for which the Spaniards have become famous in love-tales has not been neglected by the Canarians. The love of Novios and Novias is still carried on in the most approved style; in fact, the lower-roofed dwellings of the working classes furnish peculiar facilities for this agreeable pastime. The window, where this labour of love is done, is raised far enough from the ground not to tax the novio's energies in his daily devotions to his lady love. A man not particularly small may carry on courtship with the upper half of his body in "my lady's chamber," leaving the less expressive half out in the street. To help the novio in this game of patience (for "sweet nonsense" is talked for hours together), a cushion is kept ready for the support of his elbows, which would otherwise be tried by the window-sill; but love-making, for one of the parties interested in it, may be a trial. It is not at all necessary that the girl's parents should know the history of the

young man or even his name, and although half of his body may be buried in the girl's house, the rest will not be permitted to follow till his overtures have been accepted by the parents. In rainy weather or sunshine, the devoted novio retains his authorized attitude, to the admiration of the sweet cause of his devotion. When the social position of the girl places her on a lofty balcony the novio, mounted on horseback or otherwise, in utter disregard of the risks of a crick in the neck, gazes at the balcony, while the lady love, with less danger to her neck, droops her head to the swain below. A horse trained to take his proper place under a balcony is a valuable animal in the world of courtship. One gentleman, now unfortunately gone over to the majority, enjoyed the double pleasure of horse exercise and a performance on the banjo as he paid his court to the Dulcinea of Las Palmas. What the novio and the novia can have to say to each other, under such peculiar circumstances and for several mortal hours, is not the privilege of middle-aged gentlemen to understand; but one case at least is well known where the couple, having discoursed love for five long hours in a play-house, returned to the house of the novia, and while she took her place in the balcony the young man stood below, conversing till the grey of dawn. They are certainly a nation of lovers; but human nature may blush to learn that when so much love is wasted before the beginning of the matrimonial life, very little is left for the long years they spend as man and wife, "long years," not as a figure of speech, for they generally marry very young. I was told by one who knew Spanish ladies as intimately as it is possible for foreigners to know them, that in spite of all the peculiarities of their married life and the not over fond treatment of their husbands, Canarian wives enjoy a reputation for chastity which reflects honour on their good sense and self-respect.

Education, like some other good things of this life, is more extensively appreciated by the poor than by the rich. The higher classes, however, have produced some men whose fame in certain walks of life has eclipsed that of the children of the old country. I have already referred to the Chief Engineer, the Spanish Ambassador, the great novelist, and I can hardly pass over the name of Don Luis Antuñiz, the Governor of Barcelona. The progress of education is very fair; there are forty-five schools and colleges in the island, where 2,945 pupils are educated; the poorer classes are coming to the front, and the well-to-do must either take their proper place in the competition, or they will have to fall to the

rear. There is no opportunity for higher education in the island, and those who are anxious to "finish" their education, have to enter at a college in Spain for a term of two or three years. Female education is decidedly on the increase, and has already scored no small amount of success. The Canarian girls are particularly intelligent and want neither smartness in their speech nor grace in their movements, and with a little more of exercise than they seem to care for they would save their figure, which is now lost before a woman is thirty years old. The good sense of the men ought to have suggested this obvious remedy against corpulency, which is really the bane of Canarian women in their maturer years. There are about two or three medical doctors and as many lawyers among the class of women who have had the advantage of finishing their education in Spain.

The Church of Rome has a very weak hold on her flock here, and although, as in some other countries of Europe, *worship* is delegated to women, the Canarians seem to regard all religions as the same, and the influence of the priests, however little it may be, is confined to the women. I am afraid the leading men here, as in other Roman Catholic countries, are indifferent to religious observances, and without any overt acts of infidelity are well pleased to leave religion to priests and women. The young men consider it innocent amusement to watch the women coming out of the churches, and only a few among them think it advisable, even for the sake of appearances, to enter the sacred building. The priests of the island generally come from the poorer classes, as the Church seems to confer some sort of social distinction on those who otherwise would have none at all. The present bishop of Las Palmas is not often seen in public as a popular prelate ought to be.

Of the Church I have already said enough. Medicine has achieved a greater amount of success in Las Palmas than theology; there is no want of medical men there, and although the fees are particularly small medical practitioners flourish and the demand for them is certainly on the increase. Among them, always excepting the learned Dr. Chil, the leading place may be accorded to Don Vicente Ruano and two others, who enjoy great local reputation. The growing English colony of Las Palmas will soon make the presence of an English medical man among them a necessity.

Law, considering the amount of work to be done, is also in a flourishing state. The leading legal men are prosperous, and one

of the best country houses on the hills is owned by a member of the long robe.

The civil government of the island, and the two neighbouring islands of Lanzarote and Fuerteventura, is confided to the charge of Don Ferreol de Aguilar under the designation of Deputy-Governor; under him is the mayor and the members of the Corporation of Las Palmas, to whom is entrusted the public peace, the safety of public property, and the control of the police. It is a godsend that the orderly Canarians do not require an effective body of police, for in the whole of Las Palmas these invisible functionaries do not exceed a figure which would move the contempt of a London rough; half a dozen policemen suffice for the wants of a population of 23,000 souls.

The military government of the three islands is entrusted to a brave soldier, a leader of men and a most amiable gentleman, the Don Ignacio Perez Galdos, brother of the famous novelist. Owing to various causes, military service is unpopular here and able-bodied men earn more as labourers than they do as soldiers, and owing also to the fact that the rich escape the hardships of conscription the poorer classes do not recognize the justice of their treatment when compelled to undergo military training. The Canarians neither want courage nor physical strength to make good soldiers, but the military service of Spain is distasteful to them. The soldiers are not treated at Las Palmas with any particular favour, and there does not seem to be any desire in the citizen to don the uniform of the soldier. Brigadier Ignacio maintains the efficiency of the men under his command, but those who know him well have a high opinion of his military capacity and regret that his powers are not better utilized than they are. He has under him 400 men of a light infantry regiment, with an equal number of reserve. There are a reserve of 15,000 militia at Las Palmas, and a like number at Guia; these reserves are officered by local men, but the commands are reserved for men from the regular army. There are forty artillerymen in active employ, but this number could in case of emergency be raised to 200. There is a detachment of engineers, and a commissariat officer with a full staff of subordinates.

Should Spain enter into war with Morocco, her only likely battlefield within practical calculation, the services of the brigadier and his gallant aide-de-camp Don Luis Ruiz will probably be placed under requisition.

The commandant of the port, Don Pedro Castillo, is another

highly-bred gentleman with whom courtesy is a natural virtue. He has lieutenants under him who do all the hard work of the department; but the steady increase of the work to be done at Puerto de la Luz will soon necessitate an expansion of the wants of the Naval Department.

The Judicial Department is administered by a President (who has jurisdiction over all the Canary Isles), and by judges and magistrates who, according to the law, are all foreigners. No Canarian can ever attain judicial dignity in his own island, a barbarous custom which has long enough exercised a baneful influence. To those who are accustomed to the complaints against Native Courts in India, this Canarian distrust of their Law Courts will not appear strange. There is no stain on the character of their judges which would amount to the offence of bribery, but they are not above yielding to friendly importunities, and this fact is but too well known—yet it creates no agitation. In fact, it is regarded as one of the weaknesses inseparable from poor human nature.

The practice of excluding all strangers from the Courts while the judges are sitting appears to me inexplicable, and those whom I consulted for an explanation could only refer to the fact that it was the *general practice* in the Spanish Kingdom, and that no exception was allowed to this rule. The rule, however, seems to be so well understood that I heard no complaint against it. From the President's order appeal lies to the High Court of Madrid.



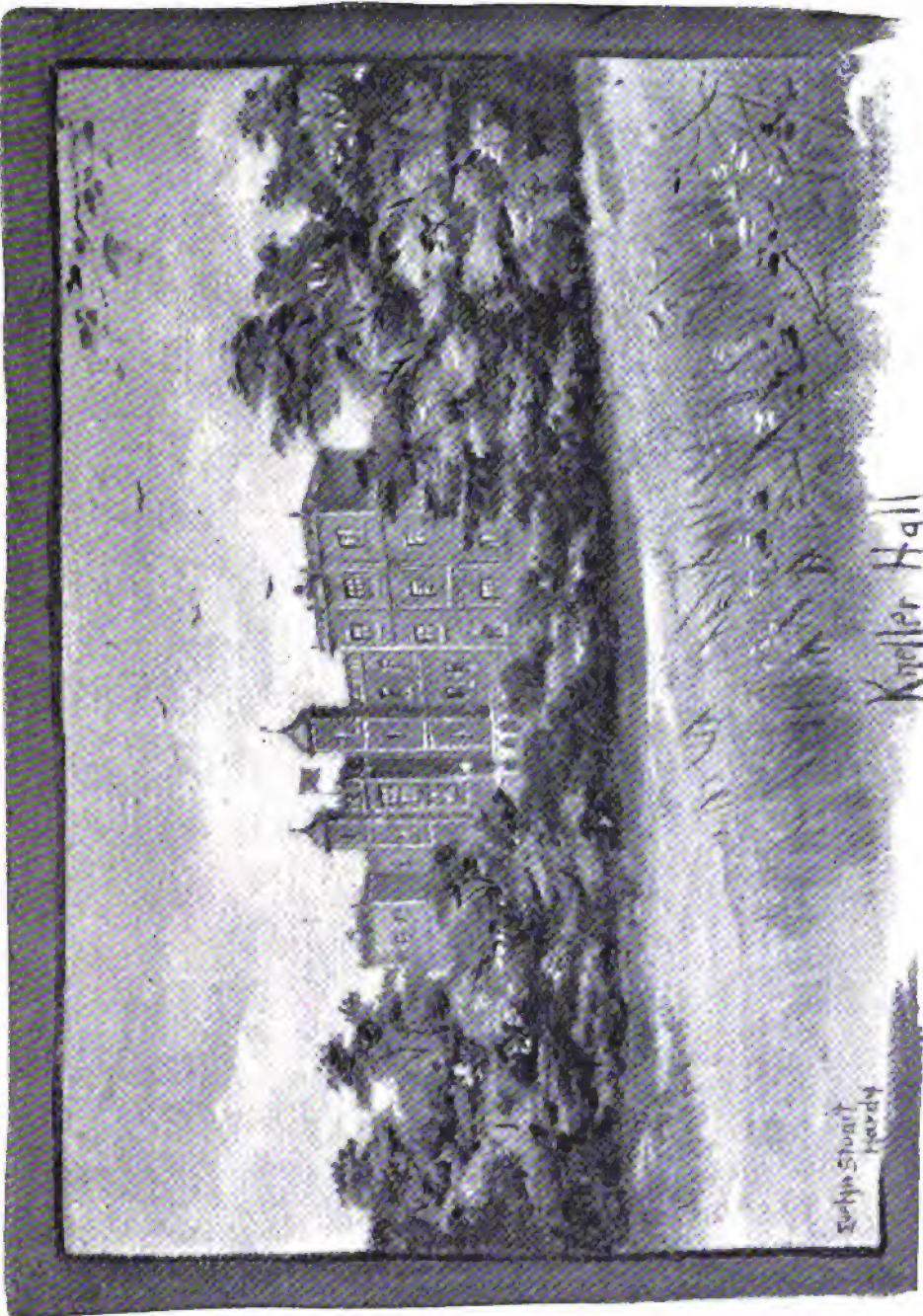


Kneller Hall.

NELLER Hall, the school of instruction in music for the army, is, unlike most War Office buildings, situated in the country. It is a marked feature in that portion of the Thames Valley near Hounslow, Twickenham, and Richmond.

Possibly its founders remembered that there is much in the delights of the country that reaches beyond the gratification of the eye, and which bears on the mind, tending to harmonise with the music taught in the institution. In the neighbourhood there is plenty to invigorate the mind, to allay agitation, and mellow the affections. It is a usually received axiom that our happiest years, schemes, and best resolutions, are formed under the genial influence of country scenes and the obscurity of rural retirement. Kneller Hall is certainly a delightful country residence. Boating on the Thames and some of the most beautiful walks in England lie within easy range of the Hall.

The scenic beauty of the landscape forcibly struck me on my early summer visit. Spring had liberally scattered her wealth of foliage; the horse-chestnuts were of full white or pink blossom, and the other trees, shrubs, and flowers were in gentle progression, fulfilling their great annual miracle of growth and subsequent decay; for the "winter was past, the rain over and gone, and the voice of the singing birds heard" throughout the adjacent woods. Even the very air seemed different to what I had left an hour before in London, and gentle breezes were pleasantly wafted over the neatly-trimmed grass and sweetly-scented flowers. High and low, rich and poor, gathered in the grounds every Wednesday to hear the band, see their friends, and enjoy the afternoon, the centre of attraction being the distinguished bachelor cavalry commandant, ever "on hospitable thoughts intent," with the reputation of being one of the best musicians in England.



John Stuart
Hardy

Kippler Hall

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The Hall is named after Sir Godfrey Kneller, but the present building stands on the foundation of the old Hall, which has long since passed away. This distinguished man—court painter of Charles II.—is said to have lived at Kneller because he wished to be near the court beauties of Hampton Palace, whom he has immortalized with his brush, and probably his Kneller Hall was not so commodious as the present building. The house was afterwards enlarged by Mr. Samuel Prime, and in subsequent years it passed into the possession of one Calvert, a brewer. In 1848 the Government purchased it, and it has ever since continued to be a Government possession.

After it had been purchased, considerable additions were made to it, and it became a training school for Government schoolmasters under the auspices of the present Bishop of London. For some reason or other it did not turn out a success, and in 1857 it passed into the possession of the War Office Educational Branch, and the School of Music, now raised to a high degree of excellence, was then formed. A while ago a gentleman met at a party the Bishop above-mentioned, and mindful of the fact of his connection with Kneller, but oblivious of his want of success, invited his lordship to give him the result of his experience. The practical result is said to have been ominous silence and a dignified retreat on the part of his lordship.

During the long period of continental peace—from the battle of Waterloo to the Crimean war—our military bandmasters were usually foreigners, but it became apparent after the Crimean campaign that it was desirable to have a supply of our own subjects to meet the constant demand. If a war broke out, the foreign bandmasters either could not, or would not, accompany the band, and being foreigners could not well be compelled to do so; a decision was therefore arrived at, which time has since proved to be correct, that, on the grounds of public policy, the bandmasters in regiments of the British army should be military bandmasters, and subject to the Mutiny Act and Articles of War, now merged into the Army Discipline Act. The experience of subsequent years has proved there is no longer need to engage the services of foreign bandmasters for our military bands. The training and system at Kneller Hall have been brought by successive commandants to such a high degree of perfection that the Government have, for many years past, possessed a sufficient number of highly trained men of our own nationality to supply the constant demand for our military bands. There is also a wholesome rivalry in the acqui-

tion of musical knowledge which tends to stimulate the students to great and continual exertion.

The Hall usually has about 200 students and pupils in residence, who are steadily training; the stream of arrivals and departures seems incessant. The students are sergeants who aspire to become bandmasters; the pupils are those trained for bandmen. Only those who have shown decided musical efficiency are allowed to go



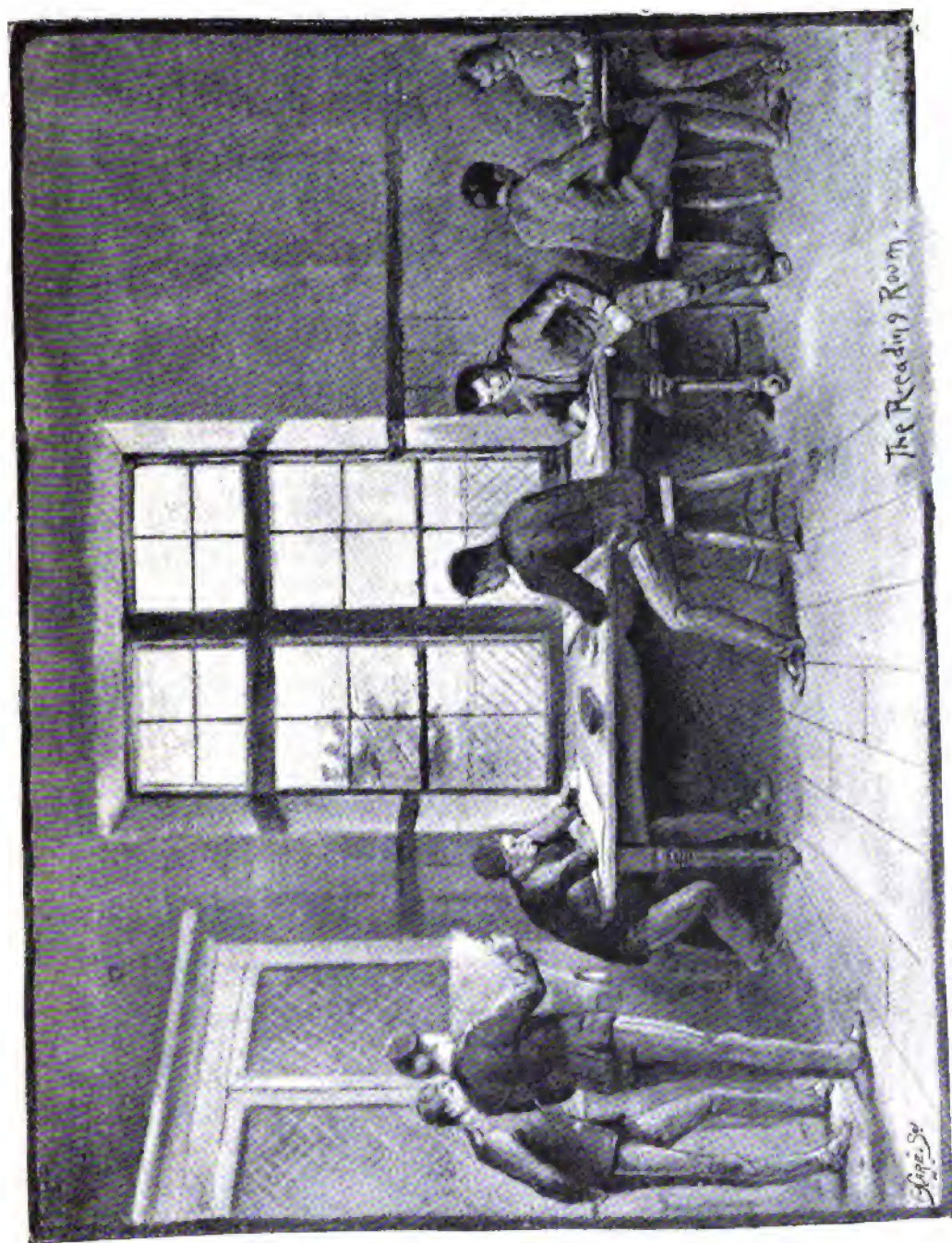
Solo.

through the course of training as bandmasters. A bandmaster must not only qualify himself by getting a first-class certificate in general education, but also obtain one in musical knowledge. The school of music at "Kneller" being maintained by the Government for the purpose of training non-commissioned officers and soldiers for military bandmasters and bandmen, and as their subsequent efficiency much depends upon their qualifications prior to admission, very great care is exercised in their selection, and in no case is either a man or a boy permitted to enter who is not a voluntary student. All who are admitted have to be of exemplary character, and by their general appearance, education, manners, and military bearing, as well as by their musical abilities, give promise of doing credit to the special training and instruction they

will receive, and the musical position to which in due course they may eventually attain.

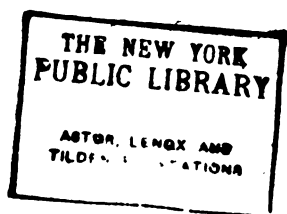
Boys, unless enlisted from the Royal Military Asylum at Chelsea, or the Royal Hibernian Military School, are not eligible until they have attained at least a fourth-class certificate in education.

Short-service soldiers are not eligible for admission until they have re-engaged to serve twelve years with the colours, and much care is exercised by respective commanding officers in selecting



The Reading Room.

Age 50



those who, by their character, habits, and aptitude for music, are likely to repay by subsequent services the time and expense of their musical education.

According to the Queen's Regulations, all appointments of military bandmasters are now made *exclusively* from qualified non-commissioned officers who have been trained at this school of music.

By way of securing uniformity throughout the regimental bands of the army, the instruments at Kneller are of the same pitch as that adopted by the Philharmonic Society. When the candidates have become trained bandmasters they receive £70 a year, in addition to the pay of their rank as warrant officer, and exclusive of any presents they may receive for private performances.

The course of instruction runs through about two years, and those who attain the coveted standard—a high one—then become eligible for the post of bandmaster in any regimental band in which a vacancy may occur in the Household Troops, Cavalry, Royal Artillery, Royal Engineers, Infantry, or other regiments at home or abroad.

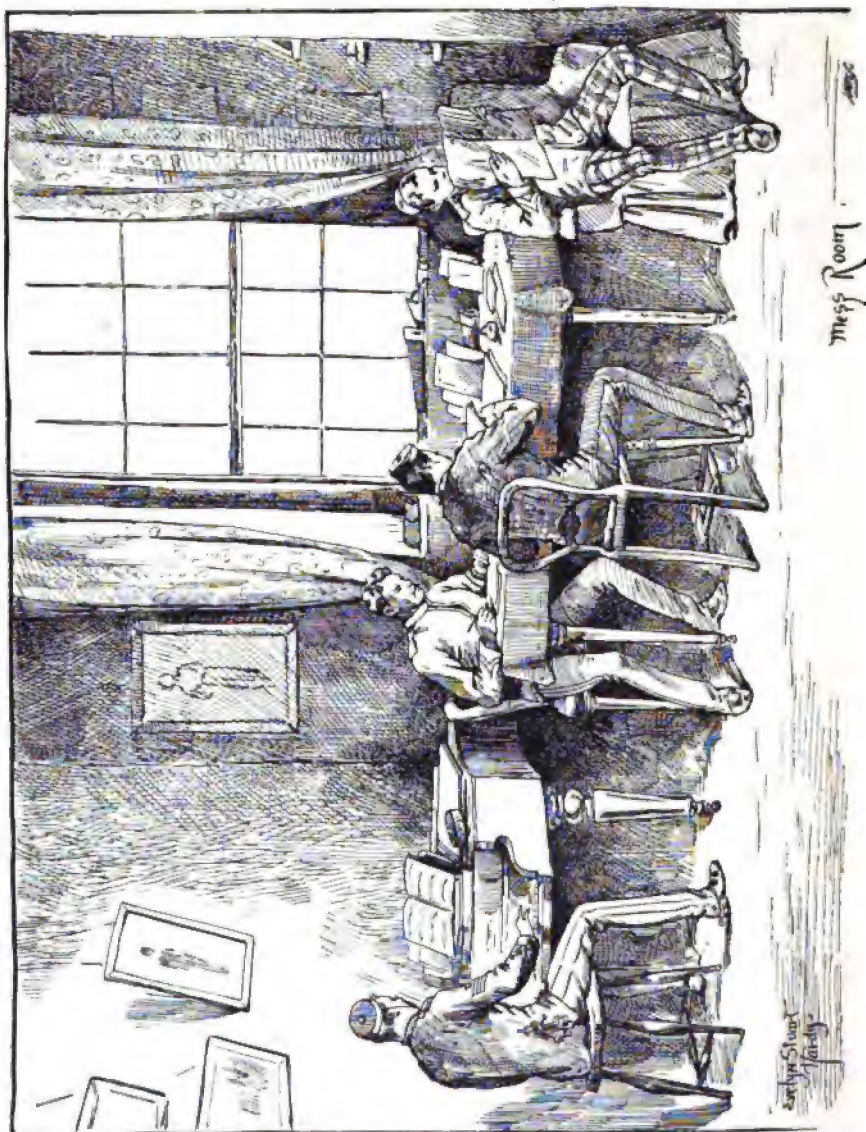
The round of the clock on week-days at Kneller Hall runs as follows:—

At 6 A.M. the students and pupils rise; at 6.30, parade for drill; they sit down to breakfast at 7.30 A.M. The morning is occupied in the manner prescribed by the musical time-table, with two hours' interval for dinner and recreation. The instruments are given in at 6.20 P.M. Then there is general recreation till watch setting at 10 P.M., and lights and fires are extinguished at 10.15 P.M. I should mention that there is an hour each afternoon for tea and recreation.

Military bandmasters take rank next after the regimental sergeant-major, and with the schoolmaster, if the latter is a warrant officer, according to the date of appointment as warrant officer.

The general principles kept in view in training military musicians embrace the fixed rule that the bands, bugles, drums and fifes, when playing or beating for military purposes, should adhere strictly to the time *within the minute* of the exact number of steps prescribed in the field exercise. In the case of the cavalry bands, the time corresponds to the general action of a horse at the paces prescribed for the trot and the canter.

To become a bandmaster, the student has to learn to play every band instrument, and also to be proficient in at least *one*, such as the clarionet, flute, French horn, alt horn, cornet, trombone, bas-



soon, &c., and their certificates have, in addition to the above, to state that they are qualified to teach the various mentioned instruments, and that they have acquired a proper and satisfactory knowledge of the art of fingering them.

During the first six months passed at Kneller Hall, both the students and the pupils are probationers, and are liable, at the discretion of the commandant, to be returned to their regiments. After they have acquired a fair knowledge of harmony, counter-point, and military musical instruction, they reach the first form, and are then employed "scoring," and assisting in the training of the youths who are to develop into bandsmen.

The band that plays in the grounds of Kneller each Wednesday, weather permitting, between April and October, for the edification and delight of the public, is composed of all the students and the advanced pupils. The former are sent to London from time to time to acquire additional instruction by attending concerts and operas. They do not perform in them, but they are expected to notice the spirit of the performance, and the different styles of orchestration. There is an excellent library belonging to the Hall, containing plenty of books suitable for the scholars, and among them are to be found the standard works on music by Reicha, Cherubini, Bannister, Logier, Dr. Stainer, Dr. Marks, and others. The different classes study harmony and counter-point from the works of E. F. Richter, of Leipsic, and Sir Frederick Gore-Ouseley, of Oxford. I was glad to notice, in the interests of the commandant, that though he is most musically inclined, the Hall is well provided with double doors, as it may be truly said with apologies to Tennyson—

All day the flowers do hear
The flute, violin, and bassoon;
At night the breezes oft are stirred
By instruments not in tune.

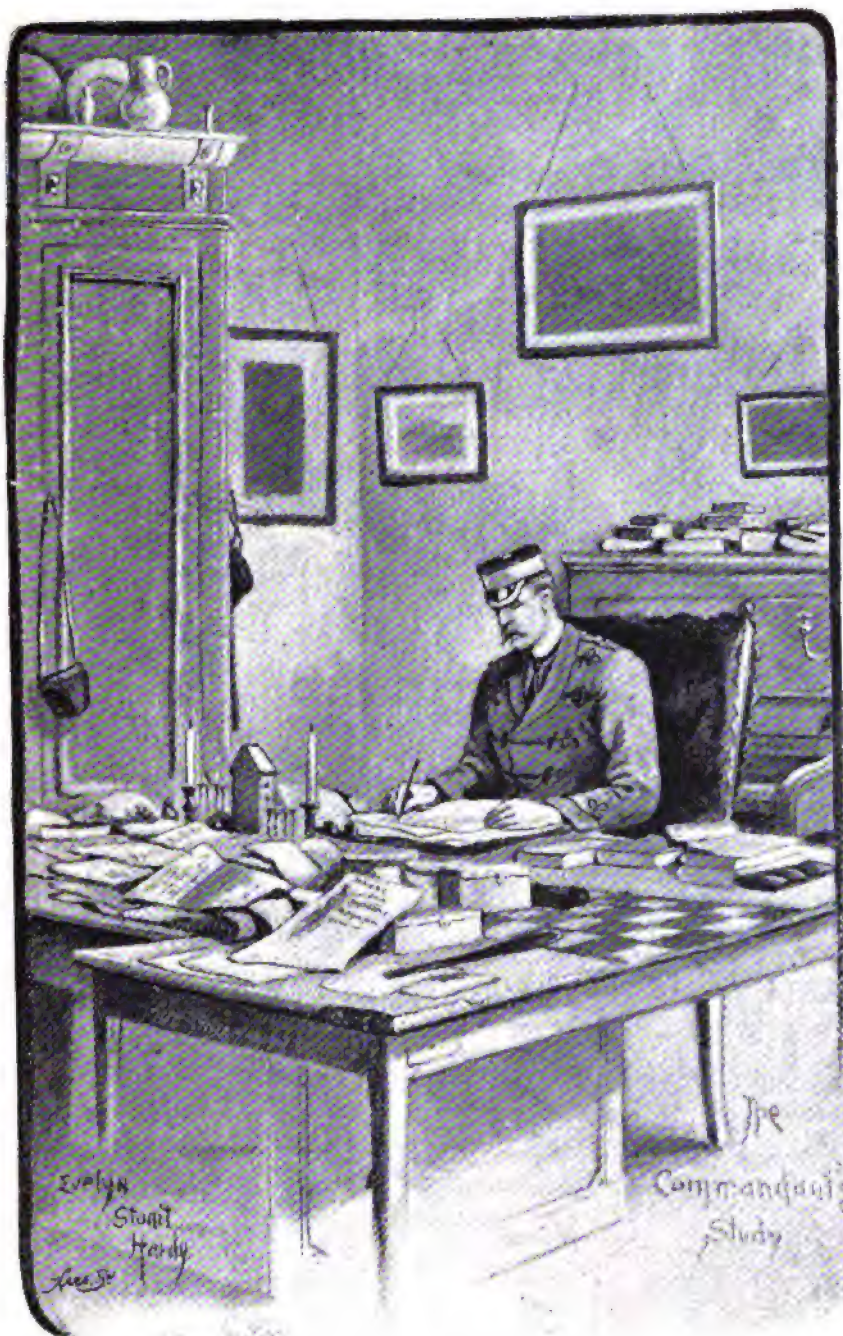
If, therefore, the sounds of harmony or discord were not shut out by double doors, the domestic life of the commandant and his staff and the non-musical inmates might be hard to bear.

The original foundation-stone, with Godfrey Kneller's name inscribed upon it, still occupies a position in one of the passages.

The students and pupils are instructed in music by a director and many non-resident professors, who come there from considerable distances, and an accurate record is kept at the Hall of the time devoted by each to the instruction of the students and pupils. There is a good recreation-room, as well as a library; also a piano, harmonium, and a billiard-table.

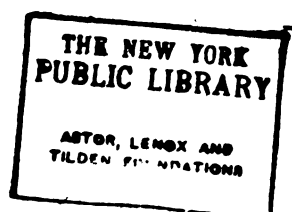


The Adjutant's Quarters.



Evangelin
Stuart
Hardy
Lives

The
Commandant's
Study



Married students are permitted to live with their wives if they can find lodgings within reasonable distance, and suitable ones are generally to be obtained at Twickenham and other adjacent villages.

There is a large dining-hall (used also for band practice in wet or cold weather); but in the summer months, when fine, the pupils take their meals out-of-doors under the cool shade of the trees, an arrangement supposed to be conducive to health. Full band practice also takes place in the open air during fine weather. There is no hospital in the institution, but any sick—they are rare in this healthy spot—are sent to Hounslow Garrison Hospital for treatment. The students and pupils are well looked after and have plenty of healthy work and good healthy food.

The little church at Kneller forms part of the hall. It does not, indeed, point with taper spire to heaven, neither does it like our English village churches remind the rural population around that their baptismal and marriage vows have been uttered there; but it is nevertheless a gem of art—rich in stained windows and church ornamentation. Any seats that may happen to be vacant on Sundays are gladly filled by civilians, who come from far and wide on the chance of being able to participate in the Church service. By an ingenious device of the present commandant, about forty seats will be added at the end gallery where the choir sit, and the arrangement will be in harmony with the existing architecture. The service, a very musical one, is usually conducted by a neighbouring clergyman, who is effectively aided by a congregation more or less proficient in music.

Though the late commandant knew comparatively little of music, during his eight years' tenure of office he thoroughly organized and brought the system of teaching at Kneller Hall to a high degree of perfection, so that when his successor—a musical genius—came into office, he found all moving with military precision. As above indicated, "the round of the clock" maps out the daily labour, and by way of reward the students and pupils are permitted, subject to certain minor restrictions as to numbers and time, to go on leave on Saturdays, and to return on Mondays. Their sleeping apartments are first cousins to barrack-rooms, and sentries are not much in vogue. Barrack-cells are unknown at Kneller, but as both students and pupils are military men, the commandant has power to award the punishments of an officer commanding a brigade dépôt. Should anyone qualify for "confinement to cells," he affords a dissolving view of himself in charge of

an escort to Hounslow Barracks, a few miles distant, and in the garrison cells there has ample time to meditate alike on his faults and the charms of life at Kneller.

Long may the system at Kneller prosper. A supply of candidates seems assured not only by the system, but by the regulation that a corps who receives a bandmaster from Kneller Hall must be prepared, if called upon, to send as a substitute a suitable non-commissioned officer to be trained for a bandmastership.

Though each regular army band has a right to send a man and boy for two years' musical training, on the result of which certificates are granted, increasing demands for certified musicians and the limited space of Kneller Hall often necessarily prevent competent men having the chance of entrance; just as open competition (which superseded nomination) year after year keeps out many well-qualified youths from Woolwich or Sandhurst as cadets.

Many competent musicians draft into the London Volunteer corps, which maintain good and fairly well-paid bands, the men finding their own instruments, but receiving at stated times their uniform. It is a recognized rule that although bandmasters and bandsmen wear swords as part of their uniform, they never draw them on duty. At the annual ceremony of trooping the colours on the Queen's birthday, in rear of the Horse Guards' building, at a particular moment during that ceremony, when the band plays a specified march, the regimental sergeant-major draws his sword, the only time he does so during the year.



Naval Warfare:

ITS PRINCIPLES AND PRACTICE HISTORICALLY TREATED.

BY REAR-ADMIRAL P. H. COLOMB.

CHAPTER V.

THE DIFFERENTIATION OF NAVAL FORCE.

The promiscuous system of fighting in the early days of naval warfare did not tend to the production of any particular classes of ships.—The rise of the line of battle tended to increase the force of the ships forming part of it, and to equalize their power.—At the same time the pursuit and defence of commerce tended to develop a lighter class of ships.—The necessities of a fleet in having proper look-outs demanded a third class.—The results of these tendencies are traced down to 1813.



IN the previous chapters I have endeavoured to trace the rise of true naval war and its nature; and then to show how, owing to the position which sea-borne commerce takes as the major part of the wealth and stability of nations, there may be, and have been, wars wholly naval—wars where the operations on the land, or against the land, have been insignificant in comparison with the operations on the water, or else wholly absent.

But as naval war arose and developed without premeditation, and even without knowledge at first of what it really meant, it followed that it was only by degrees that men came to understand what kinds of naval force were required in the economies of naval war, and how these kinds of force could be most effectively distributed. If the first Anglo-Dutch war exhibited itself on a wholly new plan, a plan which had never been seen in the world before, it was quite possible to regard it as something exceptional, and to suppose that earlier types of war might revive. It did not follow at once that maritime nations should prepare for that kind of war, and no other; it was not certain that this struggle for the com-

mand of the sea was for ever after to be the one aim of naval nations, in the first instance ; and that unless there was at the outbreak of the war excess of power on one side sufficient to assert and maintain it, the Anglo-Dutch type of war was permanent.

But when a second and a third war succeeded, of which the lines were, if anything, marked out in deeper cuts than ever, it could not but follow that all who had control over naval services should endeavour to prepare them for that kind of war and no other.

And what, so far, was this kind of war ? It was, certainly, chiefly a series of general actions between the most powerful forces that each side could bring to bear against the other. Secondly, it was the defence and attack of commerce at sea. Thirdly, it was the attack and defence of commerce in port, supplemented here and there by attempts to damage the sources of naval strength, and to a very small extent by attempts to damage property on land. It had been made clear that the defence and attack of commerce could, and sometimes must, go on side by side with the direct struggle for the command of the sea ; but equally clear that the power against which the balance turned by ever so little in the great primary contest, was terribly handicapped as to the defence of its commerce. It had also been fully demonstrated that it was entirely hopeless to think of making attacks on shipping in port, on sources of war supply, or on property on land, unless there were at least an assured local command of the sea surrounding the point attacked. This was possibly the lesson least easy to learn, seeing that until the advent of the Dutch wars the system of cross-raiding had not been abandoned.

Almost obviously some differentiation of naval force should have followed the determination of the Dutch in the second and third wars to abandon all attempts to defend their commerce, and by consequence to suppress it for the time. On the Dutch side, their whole power would be thrown into the form which was considered most suitable for the great fleet action, but they might also have looked to a small expenditure on vessels most suitable for attacking the commerce of the enemy at sea. On the English side, the knowledge that the Dutch were determined to throw their whole energies into the general fleet action, as a direct endeavour to get such a command of the sea as would enable them to restore their commerce, would compel special attention to the preparation of the fleet for general action. The absence of Dutch commerce would equally divert attention from the provision of means for commerce attack, and there would remain commerce defence. But even here

the attitude of the Dutch would have been such as not to arouse great apprehension, and, therefore, even commerce defence might have held in general estimation a subordinate place.

Strategically, the effect was on both sides towards a differentiation of force into that which was considered most suitable for the general fleet action, and that supposed most efficient for the attack and defence of commerce, apart from those great efforts which had characterized the first Dutch war, but which were eliminated from the second and third by reason of the Dutch withdrawal of their merchant ships from sea. Further, the strategical effect of the time was to minimise the force set apart for the secondary object.

The practice of privateering may be supposed to have tended still more to minimise the provision of public force for the attack on commerce. We have seen already* that, in the reign of Elizabeth, the practice of allowing subjects to fit out war-ships for preying on the enemy's commerce was in full force. The historians speak less of it in the Dutch wars, but still say enough to assure us that it was in effective force. To some extent, it relieved the states on both sides from the provision of a large force of vessels for the attack on commerce.

But if the strategical conditions of naval war thus tended to a differentiation, the tactical conditions tended even more strongly that way. When the general action—the purely naval action of ships under sail—took, in the first Dutch war, its place as a revival of the military battle of the ancients and of the middle ages on the water, it was a novelty, and there was little sense either that it would ultimately require particular classes of ships or assume any particular form. Preparations for a sea-fight had not, before this time, assumed either characteristic. There was no differentiation of force, and hardly any adoption of form.

We have seen that on the part of Spain, in 1588, the idea of a regular sea-fight appears to have been altogether absent. There was in the Spanish Armada, in fact, no differentiation of force, and no established order of fight.

But neither was there on our own side. We collected an immense force, but in the lists handed down to us there is no sign of any classification, of any gathering together of classes of ships for the purpose of concerted action. There were several lists or groupings of the ships, but all of them without classification. There were 34 ships serving with the Lord High Admiral, all apparently

* Vol. ii., p. 968.

Queen's ships, and their gradations went steadily down from the *Triumph*, of 1,100 tons and 500 men, to the *Signet*, of 30 tons and 20 men. Of 10 ships "serving by tonnage with the Lord Admiral," the gradation of class descended pretty evenly, from the *Edward of Maldon*, of 180 tons and 30 men, to the *Peppin*, of 20 tons and 8 men. With Sir Francis Drake were 32 ships, from the galleon *Leicester*, of 400 tons and 160 men, to the *Carvel*, of 30 tons and 24 men; and so on through several other divisions consisting of smaller ships, but each list offering a gradual fall in the force of the ships from the highest to the lowest.*

An analysis of the lists gives us 197 ships in all, manned by 15,785 men. The tonnage of some are omitted, but that of 175 of them came to 29,744 tons, and their sizes were thus distributed :—

Ships.		Tons.		Ships.		Tons.	
1	-	-	1,100	4	-	-	300
1	-	-	1,000	6	-	-	250
2	-	-	800	21	-	about	200
3	-	-	600	9	-	over	150
6	-	-	500	30	-	about	100
5	-	-	400	60	-	under	100
1	-	-	360				

There are thus no gaps, no points at which we can say, here are a group of ships suited to one purpose, and here a group suited to another. All the traces of classification fall into the one fact that as the ships grow smaller so they grow more numerous.

A list of the navy at the Queen's death in 1603, handed down to us by Sir William Monson, supplies the following analysis :—

Ships.		Tons.		Ships.		Tons.	
2	-	-	1,000	2	-	-	400
3	-	-	900	3	-	about	300
3	-	-	800	7	-	-	200
2	-	-	700	3	-	-	100
4	-	-	600	8	-	under	100
4	-	-	500				

In this list we have the same steady gradation downwards, from the most to the least powerful ships, but with the difference that the smaller ships are not so numerous, there being 20 ships of 400 tons and upwards and only 21 below that size. This is probably explained by the practice, which then obtained so largely, of mingling private enterprise with that of the State; so that de-

* See Charnock's *History of Marine Architecture*, vol. ii., p. 59.

pendence was placed on the merchants to supply the smaller vessels required.

Take, again, the list of the Queen's ships in the expedition of Essex to Cadiz,* and we find 17 ships which, as the fighting force, did not carry soldiers. There were 3 ships with crews of 340 men, 6 with 200 to 300 men, 2 with from 100 to 200 men, and 6 carrying under 100. Here still is the regular gradation from large to small, without any sign of classification or grouping such as would lead us to infer adaptation to particular purposes.

But in the early part of the seventeenth century there was a tendency to group the ships, which afterwards developed into the well-known system of rating which has only fallen out of use in our own day. But the proposal of Sir Robert Dudley (Duke of Northumberland), referred to, and the subsequent systems of classification and rating, were not prompted by considerations either strategical or tactical, having to do apparently only with convenient nomenclature, account, and finance.

Dudley's classification was as follows:—(1) The *galleon*, of 80 guns; (2) the *rambargo*, a light frigate or pinnace; (3) the *galisabra*, a galleas; (4) the *frigata*; (5) the *galeron*, a galley; (6) the *galerata*, a small galley; (7) the *passa-volante*, a dispatch vessel.

From the nature of this grouping, it is plain that the attempted classification was no more than a desire to put into order that which had no order, and to group several diverse classes into one or two which fairly represented the mean of them. This plan of grouping was not adopted, though it may have hastened the adoption of another one. This was the one adopted by His Majesty's Commissioners originally appointed to report on the state of the navy on the 12th February 1618. They reported on the numbers and tonnage of the ships they found, but it was not till they came to propose what the navy should be that they used any classification, or found any necessary. Then that which they used, and which remained the official classification for many years, had nothing to do with strategy or tactics, but was solely an administrative device. The navy proposed to be maintained and classed was:—

4	"Ships Royall,"	800 to 1,200 tons.
14	"Great Ships,"	600 to 800 ,,
6	"Middling Ships,"	450 ,,
2	"Small Ships,"	350 ,,
4	"Pinnaces,"	80 to 250 tons.†

* See *Charnock*, vol. ii., p. 151.

† *Ibid.*, vol. ii., p. 247.

Not only do we detect no strategical or tactical idea in the names, but the descending dimensions are regular, and all that we can certainly assure ourselves of is that there was, for some reason or another, a preference for ships of nearly, but not quite, the largest class.

In a list of the navy at the close of James I.'s reign, 33 ships are given; but except for the increase in the numbers of ships of from 600 to 900 tons, the descent is steady from 1,200 tons and 55 guns to 80 tons, as if there were an equal use for all sorts of ships, except for those carrying 32 to 44 guns, and of from 600 to 900 tons.*

The system of dividing the larger ships of the British Navy into six rates appears to have been introduced during the Commonwealth. It was certainly fully adopted as early as 1660. About this time it was recognized that first rates carried over 70 guns; second rates, 60 to 70; third rates, 50 to 60; fourth rates, 38 to 50; fifth rates, 22 to 30; and sixth rates, 10 to 20. What we have to observe is that the divisions and classes are all administrative and financial. Nearly every man's pay, from the captain downwards, was regulated by the rate of the ship he happened to be serving in. But apart from this, there was the convenience—largely used—of speaking of the rate instead of the ship; and for years the master shipwrights at the yards received orders to build such and such a rate, and they were not expected to ask for any directions after receiving this simple order.

But if we reflect for a moment over this early constitution of the "rates," we can see that it not only omits to notice what strategy and tactics might demand, but it is the negation of it, supposing strategy and tactics should demand anything but a regular gradation of force. On the face of it, if we have such a classification as is just described, the inference is that we are going to build an equal number of each class. The last thing we should think of is that, for the purposes of war, some of these classes will require to be immensely swelled, and some reduced to a minimum, if not eliminated altogether. So the establishment of a series of rates or ranks, which lasted all through our wars, and which existed, in theory at least, till a couple of years ago, may have been a direct hindrance to naval progress, which experience, indeed, perceived and threw off, but which was, nevertheless, a hindrance as long as it lasted.

The system of rating in a regular gradation downwards seems to

* *Charnock*, vol. ii., p. 274.

have been common to several nations during the latter part of the seventeenth century. My chief authority, Charnock, is sometimes not quite satisfactory as to accuracy in minor matters, and I think he would be guilty of interpolating into original documents, by way of explaining them, without giving full notice that he has done so. Therefore, when he gives us, without quoting his authority, a table of the strength of the French Navy in 1681, under the head of five "rates" and four smaller groups, we are not altogether certain whether or no the rates are an interpolation. However, as given, the first rates average 90 guns, the second 72 guns, the third 58 guns, the fourth 42 guns, the fifth 30 guns; and then there are "small frigates," fire-ships, barca-longas, and pinks.*

But it may be said that navies and fleets about the time of the outbreak of the first Dutch war—that is, about the middle of the seventeenth century—pretty fairly conformed to the ideal put forward in the system of rating, and ships were built less with the view of definite duties corresponding to their size and strength, than with the view of completing the tale of each particular rate in some approach to numerical symmetry.

The British Navy stood thus on the 27th December 1653:—

1st Rates: 3 of 891 to 1,556 tons, 64 to 104 guns, and 350 to 700 men.

2nd Rates: 11 of 721 to 875 tons, 54 to 66 guns, and 260 to 400 men.

3rd Rates: 11 of 532 to 800 tons, 44 to 60 guns, and 200 to 300 men.

4th Rates: 63 of 301 to 700 tons, 28 to 50 guns, and 100 to 220 men.

5th Rates: 35 of 105 to 500 tons, 12 to 36 guns, and 30 to 200 men.

6th Rates: 9 of 55 to 255 tons, 6 to 36 guns, and 25 to 130 men.

4 fire-ships of 10 guns and 30 men.

8 victuallers of 10 to 12 guns, and 30 to 40 men.

In this list, though the mass of the ships are absorbed in the fourth and fifth rates, these rates themselves cover a very wide field, being as high as 50-gun ships, and as low as 12, pointing still more clearly towards the administrative rather than the tactical or strategical origin of the system of rating.

But this date, 1653, was one where already the experience of war had had its effect. Two years and a half before, there had been the same number of first and second rates, but only 7 third rates, and

* Charnock, vol. ii., p. 310.

20 fourth rates, and only 4 fifth rates. The result of the experience of war had been, therefore, to increase the numbers of the middle-class ships. We must remember what we have seen the nature of this war to be—namely, one where the attack and defence of a commerce which was collected in great masses formed the moving principle. It does not seem impossible to connect the increase of middle-sized ships directly with such a method of carrying on the war; but, then, I think we must allow that the fleet action, pure and simple, fell into the second place. And there was as yet little in the fleet action to cause the clear differentiation which it afterwards did.

I am not now going into the tactical question more than to trace its bearing on the differentiation of force; but it is essential that we should keep in mind that up to the end of the first Dutch war the tactics employed were of a kind that allowed all classes of ships, without distinction, to take part in a general action. We have already seen that this was so, and it is made clear to us, from the numbers of ships employed, that the whole navy on each side, ships large and small, fought together.

Sir William Monson, writing between 1635 and 1640 probably, gives us a very fair view of the tactical ideas in his earlier days, and the point at which they had arrived when he wrote; and we can see all through that there was nothing to lead the men of that day to set apart particular classes of ships for the general action. Indiscriminate numbers rather than selected types would probably have represented the idea of force in the naval mind under the circumstances.

The strict ordering of battles by ships [says Sir William Monson] was before the invention of the bowline, for then there was no sailing but before the wind, nor no fighting but by boarding; whereas, now, a ship will sail within six points of thirty-two, and by the advantage of wind may rout any fleet that is placed in that (the half-moon) form of battle.*

The weather at sea is never certain, the winds variable, ships unequal in sailing; and when they strictly seek to keep their order, commonly they fall foul one of another; and in such cases they are more careful to observe their directions than to offend the enemy, whereby they will be brought into disorder amongst themselves.

Suppose a fleet to be placed in the form of a half moon, or other proportion to fight, if an enemy charge them home in any of the corners of the half-moon, they will be forced to bear up room into their main battle; and there will ensue dangers and disorders of boarding one another, insomuch that it will not be possible for a general to give new directions, but every ship must fight at its will, not by command.

For the avoiding of such confusion, the instructions of a general ought not to consist of many words, for the greatest advantage in a sea-fight is to get the wind of one another; for he that has the wind is out of danger of being boarded, and has the advantage where to board, and how to attempt the enemy. . . .

* Monson's Naval Tracts in *Churchill's Voyages*, vol. iii., p. 320.

The wind being thus gotten, a general need give no other directions than to every admiral of a squadron to draw together their squadrons, and everyone to undertake his opposite squadron, or where he shall do it for his greatest advantage; but to be sure to take a good distance from one another, and to relieve that squadron that shall be over-charged or distressed.

Let them give warning to their ships not to venture so far as to bring themselves to leeward of the enemy; for so shall they either dishonour themselves, to see such a ship taken in their view, or in seeking to relieve her they shall bring themselves to leeward, and lose the advantage they had formerly gotten; for it will be in the power of the enemy to board them, and they not to avoid it which was the only thing coveted by the Spaniards in our time of war by reason of the advantage of their ships, as I have before expressed.*

Confirmatory of these views as to the methods of fighting which were in vogue when the first Dutch war broke out, we have the orders of the Earl of Lindsey to the captains of his fleet which he fitted out in 1635.

If we happen [he says] to descry any fleet at sea, which we may probably know or conjecture designs to oppose, encounter, or affront us, I will first strive to get the wind (if I be to leeward), and so shall the whole fleet in due order do the like, and when we come to join battle, no ship shall presume to assault the admiral, vice-admiral, or rear-admiral, but only myself, my vice-admiral, or rear-admiral, if we be able to reach them; and the other ships are to match themselves accordingly as they can, and to secure one another as cause shall require, not wasting their powder at small vessels or victuallers, nor firing till they come side to side.†

This promiscuous sort of fighting, which is fairly well exhibited in the plate in Chapter II., might take in ships of every class, and did not tend to set up any one class over any other. But the opening of the Dutch wars brought the fire-ship into prominence, and in the early battles it was a terrible weapon. But, this being so, it was only natural that some measures should be taken to reduce its power. One great source of this power was the way in which the ships during a fight were distributed in masses, for a fire-ship drifting down from to windward upon such a mass was certain to grapple some ship. Again, it was soon discovered that a promiscuous attack and defence was a very uncertain and a very unsatisfactory one. We have seen how much all the great actions in the Dutch wars partook of the character of pitched battles, and the fact must have appealed with double force to those who had the conduct of naval affairs in charge at the time.

The Dutch seem to have been earliest in devising means both to weaken the power of the fire-ships, and to bring the fleet not only under better control, but into such form as would insure the exertion of its collective power. This was the establishment of the Line as the fighting formation, and we get it in the English navy

* Monson in *Churchill's Voyages*, vol. iii, p. 320.

† *Ibid.*, vol. iii., p. 297.

as early as March 31st, 1655. Probably no doubt exists to prevent us giving to Sir William Penn the full credit of commencing the great tactical revolution. We have it in the "Instructions for the better ordering of the fleet in fighting," issued at that date by Blake, Monk, Disbrowe, and Penn; but it will be seen that, though we have the Line introduced, it is done, as it were, tentatively, and without any of that conviction which gave it in after years so rigid a position in naval tactics. Article 2 says:—

At sight of the said fleet (an enemy's fleet), the vice-admiral, or he that commands in chief in the second place, and his squadron, as also the rear-admiral, or he that commands in chief in the third place, and his squadron, are to make what sail they can to come up to the admiral on each wing, the vice-admiral on the right, and the rear-admiral on the left; giving a competent distance for the admiral's squadron, if the wind will permit, and there be sea-room enough.*

Here we have the old idea of promiscuous fighting in squadrons prevailing, an idea which would admit of all classes of ships taking their share in the fight, the notion—traceable in previous quotations, and in this, so far—being that ships would seek out their matches and fight the battle out in a series of duels. But in Article 3 we have, faintly and tentatively, the new idea.

As soon as they shall see the general engage, or make a signal by firing two guns, and putting out a red flag on the fore-topmast head, that then each squadron shall take the best advantage they can to engage the enemy next to them; and, in order hereunto, all the ships of every squadron shall endeavour to keep in a line with the chief, unless the chief of their squadron be either lamed, or otherwise disabled (which God forbid), whereby the said ship which wears the flag shall not come in to do the service which is requisite. Then every ship of the said squadron shall endeavour to get in a line with the admiral, or the commander-in-chief next to him and nearest the enemy.†

These instructions formed the basis of those issued by James Duke of York when he took command of the fleet, and dated 27th April 1665.‡ These latter show the greater precision in the order of fighting, which had been at least theoretically arrived at. The second instruction changes its form, and runs:—

At sight of the said fleet, the vice-admiral (or he who commands in chief in the second place), with his squadron; and the rear-admiral (or he who commands in chief in the third squadron), with his squadron; are to make what sail they can to come up, and to put themselves into that order of battle which shall be given them; for which the signal shall be the Union flag put on the mizen peak of the admiral's ship; at sight whereof, as well the vice and rear-admirals of the red squadron, as the admirals, vice-admirals, and rear-admirals of the other squadrons, are to answer it by doing the like.

Here is, in some sort, the abandonment of promiscuous fighting.

* *Life of Sir William Penn*, vol. ii., p. 77.

† *Ibid.*

‡ I quote from the *Life of Penn*, vol. ii., app. L. There is an undoubted copy of the Duke of York's instructions in the library of the Royal U.S. Institution.

A precise order of battle is in the background, and to be put in force by signal. The third instruction runs thus :—

In case the enemy have the wind of the admiral and fleet, and they have sea-room enough, then they are to keep the wind as close as they can lie, until such time as they see an opportunity, by gaining their wakes, to divide the enemy's fleet; and if the van of His Majesty's fleet find that they have the wake of any considerable part of them, they are to tack and stand in, and strive to divide the enemy's body; and that squadron that shall pass first, being got to windward, is to bear down on those ships to leeward of them; and the middle squadron is to keep her wind, and to observe the motion of the enemy's van, which the last squadron is to second; and both of these squadrons are to do their utmost to assist or relieve the first squadron that divided the enemy's fleet.*

The other instructions which, for our present purpose, it is important to note are numbers IV., VII., and VIII. Number IV., stands thus :—

If the enemy have the wind of His Majesty's fleet, and come to fight them, the commanders of His Majesty's ships shall endeavour to put themselves in one line, close upon a wind, according to the order of battle.

Instruction VII. runs thus :—

In case His Majesty's fleet have the wind of the enemy, and that the enemy stand towards them, and they towards the enemy, then the van of His Majesty's fleet shall keep the wind; and when they are come within a convenient distance from the enemy's rear they shall stay, until their own whole line is come up within the same distance from the enemy's van; and then their whole line is to tack (every ship in his own place), and to bear down upon them so nigh as they can (without endangering their loss of wind); and to stand along with them, the same tacks abroad, still keeping the enemy to leeward, and not suffering them to tack in their van; and in case the enemy tack in the rear first, he who is in the rear of His Majesty's fleet, is to tack first, with as many ships, divisions, or squadrons, as are those of the enemy's; and if all the enemy's ships tack, their whole line is to follow, standing along with the same tacks aboard as the enemy doth.

Instruction VIII. runs :—

If the enemy stay to fight (His Majesty's fleet having the wind), the headmost squadron of His Majesty's fleet shall steer for the headmost of the enemy's ships.

It may be said of these instructions that their spirit, if not their letter, governed the conduct of sea fights as long as they were carried out under sail. But we must not suppose that because the Line was thus set out on paper as the fighting formation, not *par excellence*, but alone, that it at once assumed its full position in fact. It was slow in accomplishing its destiny. According to Père Hoste, it was the formation taken up by both English and Dutch in the battle of the 29th of July 1653; and according to the same authority it was fully employed by the Duke of York in the

* It is strange that, with these words in existence, there should have been thought to be novelty in Clerk of Eldin's plan of "breaking the line." The author of the *Life of Penn* justly remarks upon the case.

battle off the Texel, in June 1665. But it was dropped again by Albemarle in the battle of June 1666; and by the way Sir William Penn speaks of it, it seems clear that there was still controversy as to whether a line was, or was not, the best form in which to throw a fleet for fighting purposes. Pepys reports what Penn said of the fight, a few days after its unfortunate results were made known:—"He says these things must be remedied, or else we shall be undone by this fleet. That we must fight in a line, whereas we fought promiscuously, to our utter and demonstrable ruin; the Dutch fight otherwise, and we whenever we beat them.*"

So that though the line was established on paper as the fighting formation soon after the outbreak of the first Dutch war, and though it was very precisely spoken of in authoritative instructions at the beginning of the second Dutch war, it had probably not got an absolutely firm hold in the third Dutch war. The term "line of battle" does not occur in the Duke of York's instructions. It is not used by Lord Torrington in 1690, who, when he writes describing the French fleet then in sight, does not speak of "line-of-battle ships," but as ships "fit to lie in a line."†

The advantages of the line were, however, certain to give it permanence. It was, in the first place, the great defence against fire-ships; for when the fleet to leeward was drawn out in one thin line, it was comparatively easy to open out so as to let the fire-ships drift harmlessly through. I suppose that it was this fact that ultimately abolished the fire-ship as a weapon. It was at the height of its value when fleets fought in masses, as I have said; but the more certain it became that both fleets would draw out into line, the less was the hope of an effective use of the fire-ship. As I am now on the differentiation of naval force, I may as well finish with the fire-ship at once, its reign really coinciding with the date before and during the line of battle. We have seen what a prominent part the fire-ship played all through the Dutch wars, though it is not always easy to say what numbers were employed in each fleet. But in 1678 there were 6 fire-ships to a fleet of 77 rated ships. Ten years later there were 26 fire-ships to 52 rated ships ready for sea. At King William's death there were 87 fire-ships to 123 ships of the line. In 1714 there were about 50 fire-ships to about 125 sail of the line. In 1727 the fire-ship had become less

* See *Life of Penn*, vol. ii., p. 399.

† *Entick*, p. 548. The earliest use I find of the term is in the *Life of Cornelius Van Tromp*, printed in 1697.

popular, as there were only 3 or 4 to 123 sail of the line. In 1741 there were fire-ships at home, in the West Indies, and in the Mediterranean, but there were only 17 to a total of 180 rated ships, 129 of which were in commission. At the peace of Aix-la-Chapelle (1748) we had but 5 fire-ships against a total of 174 rated ships. At the peace of Paris (1763) there were 8 fire-ships in commission at home to 55 sail of the line. At the peace of 1783 we have further hints of the decadence of the fire-ships, as there were only 7 then serviceable, though there were 273 rated ships afloat. After the outbreak of the revolutionary war we cease to hear of them as parts of an ordinary fleet, and at the peace of Amiens (1802) we only find 9 or 10 ships spoken of at a time when the navy contained nearly 1,000 ships of all classes. The number of fire-ships in commission during the revolutionary war was 3 only, from 1794 to 1799. Then it rose to 7 for that year and for 1800, falling again to 3 in 1801, and to 1 only in 1802. In 1804 and 1805 there was 1 fire-ship in commission, but after this they disappear altogether as an effective weapon.

The history of the fire-ship does not lack parallels in naval annals. It springs into favour as a weapon because the method of fighting in masses of ships clustered together offered peculiar facilities for its employment, but almost at once, the defence of drawing the fleets out into a long single line becoming established, the position of the fire-ship was weakened, and made a less important weapon than it had been. But the impetus it had received originally pushed it on, so that, though it was really weakened, it was held in higher estimation, and increased its numbers to a maximum at the end of William III.'s reign. Then experience begins to offer counteracting resistance to the waning impetus, and the weapon becomes gradually discredited. Yet it hangs on for years, after all thought of using it as it was originally used has passed away.

Taking the rise, progress, and fall of the fire-ship as an illustration of the differentiation of naval force, and the rules which govern it, we can recur to the line of battle and trace its effects. I have already pointed out how, in promiscuous fighting between two fleets, every class of ship was admitted, because, as there was no special order or rank of the ships, each could generally, and did generally, seek out her match and fight the battle out in a series of duels. But as soon as the single line became established, each ship had her fixed place which she could not quit, and hence, if there were great diversities in the strength of ships forming the line, the

weakest was quite likely to find herself opposite the strongest in the ensuing battle. The action of the establishment of the line-of-battle tended, therefore, in the first place, to the excision of the weaker ships from their place in the line, and to the embodiment of Lord Torrington's idea of having only "ships fit to lie in a line"—that is, of having what afterwards came to be called line-of-battle ships.

But, further, the tendency of the Line must have been to increase the power of the individual line-of-battle ship, so as to reduce the numbers, as a line of great extent would be unmanageable, and, in fact, could not be maintained as a line in view of changes of the wind. But on the other hand, the increase in the force of the individual ship would not have been carried to an extreme. The fear of putting too many eggs in one basket might always be expected to operate, and though it might not prevent the occasional building of a ship which was gigantic by comparison, it would prevent the reduction of the line-of-battle ships to a very small number of very powerful ships. But just the same causes which prolonged the life of the fire-ship beyond the period when it could be usefully employed, would tend to prevent its being seen, even through some courses of years, that the real line-of-battle ship was a medium ship, neither descending to the lowest nor ascending to the highest rank in the scale of force. The custom which had obtained in the days of promiscuous fighting of building ships of all classes, with the idea that all classes could fight side by side in the general action, might be expected to prevail long after the reason of the thing had demanded a uniform pattern line-of-battle ship of medium power.

But as the general action to be fought out in two opposing lines of ships became established, the attack and defence of commerce which had existed before this time called for suitable war-ships to carry it out. The establishment of the line-of-battle not only differentiated a powerful class of ships for taking part in that fighting formation, but as it excluded the smaller classes of ships from partaking in the general action it met half way the demand for special ships for looking after commerce, either by way of attack or defence.

It would appear probable that the commerce protectors or attackers would be naturally the smaller class of vessels, because, in the case of great convoys, what happened in the first Dutch war would most naturally repeat itself, and that a line-of-battle force would be employed on both sides. Where the convoy was small,

the economy of war would not permit of weakening the main line of battle for so inferior a service ; and while a lighter force might serve for the attack, so would a lighter force form a sufficient defence. The mere fact that a defence by way of convoy was furnished might put aside all idea of attack. For though it might be possible to furnish inferior force to attack unguarded merchant ships, it might be difficult to withdraw from the main force enough to make itself distinctly superior to the light force which was guarding a merchant convoy. Then, too, there must always have been the two words about convoy. A large concourse of merchant-ships would make a tempting prize, which it would be worth an effort to secure ; a proportionately powerful force might not safely be found to guard it. The alternative would be to break up the convoy into several sections, each under a light guard. It would be unlikely that all should be attacked, and of those that were attacked, a light guard might be sufficient to defend. The general tendency on the whole would be to have a very numerous and very light set of ships, for the especial purpose of protecting their own commerce and attacking that of the enemy.

We thus get a tendency towards such a differentiation of naval force as would set apart as line-of-battle ships those specially designed to fight in a line, and to act in concert, as the main strength of the naval position ; the citadel as it were of naval power ; that arrangement of naval force before which every other nature of naval force must bow, and which could not be overcome but by a greater quantity of like force. The necessity for this setting apart of a special class of ships to fight in the line of battle was fully admitted in 1744, and Admiral Lestock's anonymously published pamphlet against Mathews contains language forcibly pointing to the position the line of battle had taken, and to the certainty that sooner or latter uniformity in the ships composing the line-of-battle would be established as the necessary outcome of sea-fights so conducted.

A line of battle [says the anonymous pamphleteer] is the basis and foundation of all discipline in sea-fights, and is universally practised by all nations that are masters of any power at sea ; it has had the test of a long experience, and stood before the stroke of time, pure and unaltered, handed down by our predecessors as the most prudential and best concerted disposition that can possibly be used at sea. This order consists in a fleet of ships being extended in a straight line either ahead or abreast one ship of another, to keep as close together as the weather will permit, that at all times every ship may be ready to sustain, relieve, or succour one another. . . . It is directed that each ship in the line of battle shall keep within half a cable's length of one another, which is about 50 fathoms ; that if His Majesty's fleet should have the wind of the enemy, the van shall steer with the van of the enemy, and there engage

them, by which means every ship knows her adversary, and from the foremost in the van to the rear, attacks them successively.*

Thus the line-of-battle promised to establish uniformity, and also that the line-of-battle ship would approach this uniformity on the lines not of ships of extreme force, for then there would be too few of them, nor yet of a very low force, for then a fleet to be strong must be too numerous to handle. This was what was before the line-of-battle ship, and yet not of early accomplishment because of the force of custom and the tradition of the promiscuous manner of fighting.

But as the line-of-battle ship was thus differentiated and parted from every other sort of war-ship, it followed that the fleet would require adjuncts in the shape of lighter ships to serve the purpose of look-outs or scouts. These ships would naturally be of much weaker force than the line-of-battle ship, for they would not take part in the fight; but they would require to be of good size so as to be able to keep company with the fleet, and so as to have a speed greater than the fleet itself in order to out-sail it and return to it in the exercise of the functions of the look-out. These duties pointed to the heavy frigate, but to a ship as far below the line-of-battle ship in force as would allow of her carrying out the special rôle of attending on the fleet.

Lastly, there was the much lighter attendant on commerce either by way of attack or defence, and if the practice of large convoys should fall, as it might, into disrepute, the tendency of these lighter and smaller vessels—not of the smallest size, but still low down in the scale of force—would be to grow.

This differentiation of naval force into three classes: (1) the line-of-battle ship, (2) the frigate, and (3) the light cruiser, seems to grow naturally out of the conditions of naval warfare which we have seen established; and yet judging by the progress we have seen, we should expect the differentiation to be of slow growth. It must, I think, be admitted as a fact that the naval mind is unaccustomed to project itself onward. It is so practical that it will not move until it is pushed; and thus, though I think we can clearly trace the progress of differentiation of force, it never was complete; and all we can say is that as years went on it grew nearer and nearer to the ideal, so that at the close of naval war about 1813, we get the remarkable results which will be seen.

* *A Narrative of the Proceedings of His Majesty's Fleet in the Mediterranean, and the Combined Fleets of France and Spain, from the Year 1741 to March 1744.* London, 1744.

I have already shown that in the earlier parts of the Dutch wars the differentiation was not marked. I will take as a later instance, the composition of the fleet of August 1666, commanded by Prince Rupert and the Duke of Albemarle.* That fleet stood as follows:—

Ships.	Guns.	Ships.	Guns.	Ships.	Guns.
1 of	102	4 of	64	5 of	42
1 „	90	6 „	60	2 „	44
2 „	82	12 „	58	3 „	42
1 „	80	1 „	56	5 „	40
2 „	76	2 „	54	4 „	38
2 „	72	6 „	52	1 „	34
2 „	70	9 „	50	1 „	30
1 „	66	14 „	48		

Perhaps the absence of differentiation is as well marked in this fleet as it could be, but it is also well marked in a list of the whole navy drawn up by a Royal Commission in 1686.†

Ships.	Guns.	Ships.	Guns.	Ships.	Guns.
5 of	100	2 of	64	6 of	42
3 „	96	5 „	62	1 „	38
10 „	90	3 „	60	6 „	32
2 „	82	9 „	54	6 „	30
1 „	80	1 „	50	2 „	28
4 „	72	19 „	48	1 „	18
28 „	70	3 „	46	5 „	16
1 „	66	1 „	44		

Then, at the death of William III. (1702), the navy stood thus‡:—

Ships.	Guns.	Ships.	Guns.	Ships.	Guns.
8 of	96 to 110	2 of	66	1 of	44
12 „	90	1 „	64	1 „	40
16 „	80	17 „	60	28 „	32
1 „	74	3 „	54	16 „	24
2 „	72	1 „	53		
22 „	70	38 „	48		

We hardly trace any definite objects in the changes shown in the second list, the result of sixteen years' experience. There is some simplification and reduction in the number of types, a slight increase in the number of the heaviest line-of-battle ships, an

* See *Charnock*, vol. ii., p. 397.

† *Entick*, p. 534.

‡ *Schomberg's Naval Chronology*, vol. iv., p. 4.

increase in the 60-, 48-, and 32-gun ships, but we can hardly say that the real wants of the navy were being met. It is more as if opinion was swaying about, uncertain of its own aims, and acting in one way at one time and in another at another time. According to Schomberg, all the ships down to and including those of 48 guns were considered as proper to form the line of battle, but if this were so, it is only an evidence how little advance had been made in the true direction, for nothing could exceed the incongruity of so arranging a sea fight that a 48-gun ship should find herself matched against a 90-gun ship, or a 53-gun ship against a 110.

The navy of 1727 begins, in more than one way, to show the influences of the causes enumerated on differentiation. And there is besides an increased simplification in the matter of reduction in the number of types. The navy stood thus* :—

Ships. Guns.		Ships. Guns.		Ships. Guns.	
7	of 100	23	of 70	24	of 40
13	„ 90	24	„ 60	1	„ 30
16	„ 80	40	„ 50	28	„ 20

13 sloops of 4 to 10 guns.

Schomberg now excludes all ships below 50 guns from place in the line of battle, which, if he has contemporary authority to justify the statement, shows the action of causes which would raise the force of the individual line-of-battle ship and make the type uniform. Then, too, we have the exhibition of the gap between the force of the smallest line-of-battle ship, and the largest frigate, in the sudden drop of from 50 guns in the one case, to no more than 40 in the other. The admission of the new class, the Sloop, with no more than 10 guns, is a distinct effect of the causes sketched out, and certain to operate sooner or later.

We may now take the ships in commission in different parts of the world in 1741, through which we can trace still more clearly the tendencies of differentiation. At home the force in commission is stated as followst :—

Ships. Guns.		Ships. Guns.		Ships. Guns.	
3	of 100	7	of 70	4	of 40
6	„ 90	2	„ 60	15	„ 20
10	„ 80	13	„ 50		

10 sloops 4 to 10 guns.

* Schomberg, vol. iv., p. 10.

† *Ibid.*, vol. iv., p. 17.

In the West Indies the force was :—

Ships.	Guns.	Ships.	Guns.	Ships.	Guns.
8 of	80	16 of	60	3 of	40
7 „	70	3 „	50	6 „	20
3 sloops of 8 guns.					

In the Mediterranean we had :—

Ships.	Guns.	Ships.	Guns.
2 of	80	3 of	20
5 „	60	1 „	8
2 „	50		

In these three fleets we can in some sort discern an increase in line-of-battle ships of what might be called upper middle strength, as—counting the 50-gun ships as of the line of battle, but nothing below that—we have 57 line-of-battle ships of from 60 to 80 guns, and only nine of more than 80, and only 18 of less than 60. And also in the ships below the rank of line-of-battle ships, we only get 7 of 40 guns, that is of the heavy frigate class we have spoken of, but 38 of a much smaller class, not carrying more than 20 guns. Here is distinct approach to that differentiation which reason leads us up to when we are able to look calmly back on the naval warfare of the past and to discuss its principles. But we can note that our ancestors saw through a glass darkly, and in the struggles of constant wars established principles without pausing to identify them, and without knowing, perhaps, how much they were unconsciously guided by them.

A further illustration can be drawn from the navy as it was found in commission at the death of George II., in 1760, with its distribution on the different stations.

At Home.

Ships.	Guns.	Ships.	Guns.	Ships.	Guns.
7 of	90	10 of	64	6 of	32
2 „	80	2 „	60	5 „	28
24 „	74	3 „	50	3 „	18
2 „	70	1 „	36	11 „	10 to 14

In this home fleet we see quite plainly the growth of the upper middle strength of the line-of-battle ships; the widening of the gap between the weakest line-of-battle ship and the heaviest frigate; and the distinct proportionate increase in the numbers of the lighter cruisers.

In the East Indies.

Ships.	Guns.	Ships.	Guns.
1 of	50	1 of	20
1 „	28	2 „	14
1 „	24		

In this squadron we have the 50-gun ship passing out of the line of battle as it were, and becoming a heavy cruiser for distant and detached service. She is then accompanied not by ships in a regular descending scale, as she would have been during the period of the Dutch wars, but by a group of very much lighter cruisers, the heaviest of which has not, perhaps, half her force.

In the West Indies.

Ships.	Guns.	Ships.	Guns.
2 of	50	4 of	20
1 „	32	1 „	14
2 „	28		

Where the characteristics of the squadron—which was divided into two between Jamaica and the Leeward Islands—are similar to those in the East Indies.

In the Mediterranean.

Ships.	Guns.	Ships.	Guns.
1 of	50	1 of	14
1 „	32	1 „	10
2 „	28		

Where we have still the same thing.

In North America.

Ships.	Guns.	Ships.	Guns.	Ships.	Guns.
6 of	64	15 of	32	15 of	14 to 18.
5 „	50	11 „	28	9 „	8 to 12.
3 „	44	14 „	20		

In this squadron there is less of the marked differentiation we are beginning to see. But if we look at the three 44-gun ships as what I may call “border ships,” being almost strong enough for the line of battle and unnecessarily heavy for the duties of a frigate, we still have the three classes of line-of-battle ship, frigate, and light cruiser; the multitude of the latter being entirely in accordance with the forecast which could have been made at the date of the third Dutch war. Nothing was gained by such varieties in force as 64, 50, and 44-gun ships. A stronger line of battle could have been produced of fewer and heavier ships all of one

class ; and although progress towards this ideal is slow, I think the reader will now see that we are on the high way to its realization.

The Newfoundland Squadron.

Ships.	Guns.	Ships.	Guns.
1	of 64	1	of 20
1	,, 50	5	,, 14 to 16
2	,, 28	7	,, 10 to 12.

The differentiation of force in this squadron may be seen to conform more to the approaching rule, and to assimilate to that found in the East and West India Squadrons.

We may now pass at once to the Revolutionary and Napoleonic Wars, of which the length and persistence may be supposed to have brought all the rules and principles of naval war to a climax. I have thought that the best way of exhibiting the operation of the causes we have seen at work in differentiating naval force is by using the graphic method, and exhibiting curves which show the proportions of each kind of force, and the quantities during each year from 1793. We have pretty well seen what was coming, and had our forefathers, in 1794, had before them in a clear light all the points we have been discussing, I think we may fairly assume that they would have done at first what they did at last, and so conducted the war with a greater economy.

For what is plain to be seen, I think, is, that for naval warfare not a great many types of ships are required. Whether there be or be not a line of battle, there must be some fighting formation which is under all circumstances better than any other. The fact that a form of battle is established compels a uniformity of type of ship, because form prescribes place and prevents ships seeking their match. Therefore it becomes waste to produce a few excessively powerful ships to fight in a general action, while it is a danger to allow weak ships to take part in it. In the one case the excess of power may be, most probably will be, wasted against an inferior adversary ; in the other case, ships of greatly inferior force may be hopelessly beaten by those of medium or average strength.

Then I think we can see that there should be an immense fall in the strength of the strongest cruiser below that of the weakest battle-ship. It should seem also that this strongest cruiser has her place as the eyes of the fleet, even as set forth by James Duke of York in his instructions. Then would come another heavy fall in the strength of the light cruiser, of which the special function is guarding our own commerce and attacking that of the enemy.

I do not see that anything is gained by great variety in type. There is always the consideration present that there is no guarantee that even with the infinite variety of type, such as we see composed our navy in 1686, the particular ship most suited to the service will be where time and place requires her. Much more likely is it that the wrong types will be everywhere. In one case the ships available will be too weak, and risks will be run ; in another case the ships available will be too strong, and money will be wasted.

These thoughts spring from our study of the nature of naval war as far as we have carried it. I offer circumstantial evidence of their correctness in the growth of differentiation as we have traced it, best seen above all, in Plates I., II., III.

Plate I. shows us the nature of the whole navy in commission, year by year, from 1793 till 1813. It impresses on us two points ; the

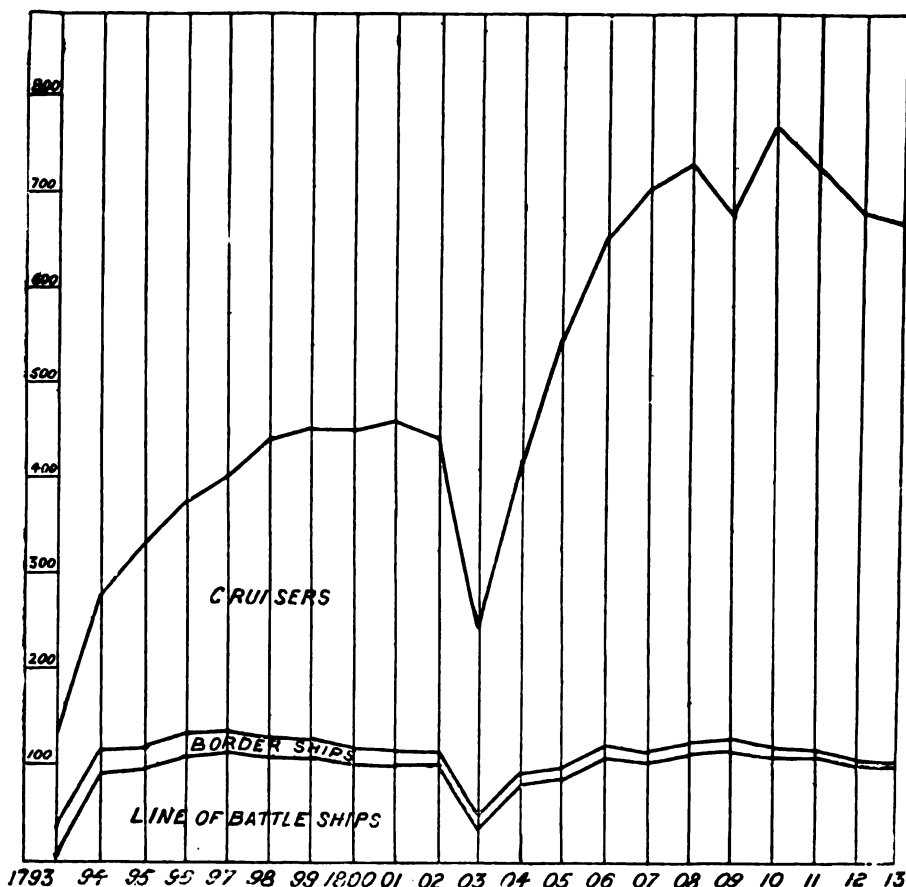


PLATE I.—SHIPS IN COMMISSION FROM 1793 TO 1813.

gradual elimination of what I call the "border ships," the ships that were and were not line-of-battle ships. There is evidence enough that the navy did not like them; they came steadily down from the Dutch days of promiscuous fighting, and we had continued to produce them because our fathers had done so. Custom went on with them as an essential part of naval force until about 1796, but the practical experience of war eliminated them. They were found in constantly diminishing numbers year by year, when they closed at a minimum in 1813.

This plate also exhibits in a striking manner the way in which the pressure of war experience demanded increase in the number of cruisers. The line-of-battle force once established in superiority required no further increase. But the demand for increase of cruisers, nearly all of which were engaged in the attack of the enemy's commerce and the defence of our own, sprang up immediately, rose to a great height during the Revolutionary war, but sprang to its greatest and almost fabulous height when our line-of-battle strength was unimpeached in any part of the world.

Plate II. gives us, with great force and clearness, the interior changes in the line-of-battle force and its differentiation. We have seen it coming, no doubt, through what has before been said, yet the precision of the result has in it the nature of a surprise when plotted out in such a plate.

From the year 1793 to 1796 the tendency would almost seem to belie teaching, and to reverse the processes which had gone on in former wars. Up to 1796 there was an increase of each class of line-of-battle ships, that is to say, a swinging off from the uniformity which reason would have pronounced for, and in 1796, there were in commission 22 ships of from 90 to 120 guns; 5 of 80 guns, 54 of 74, 24 of 64, and 25 border ships of from 44 to 56 guns on two decks. This was really an approach to the old thing, and an advance in an altogether wrong direction, if the subject were to be reasoned out. But no sooner was this point reached than the reason of the case—still, possibly, without consciousness—began to prevail. By 1801, the border ships had fallen to 15, the heaviest types of the line-of-battle ships, those from 80 to 120 guns had diminished by 4. The 64 on the other side had diminished in number by 4, while the 74's had increased by 4. Practically the Napoleonic war was simply a development of right reason, stimulated by the spur of experience. The heavy and the light line-of-battle ships continually diminished in number, while the upper middle rank of that class of ship, the 74, continually

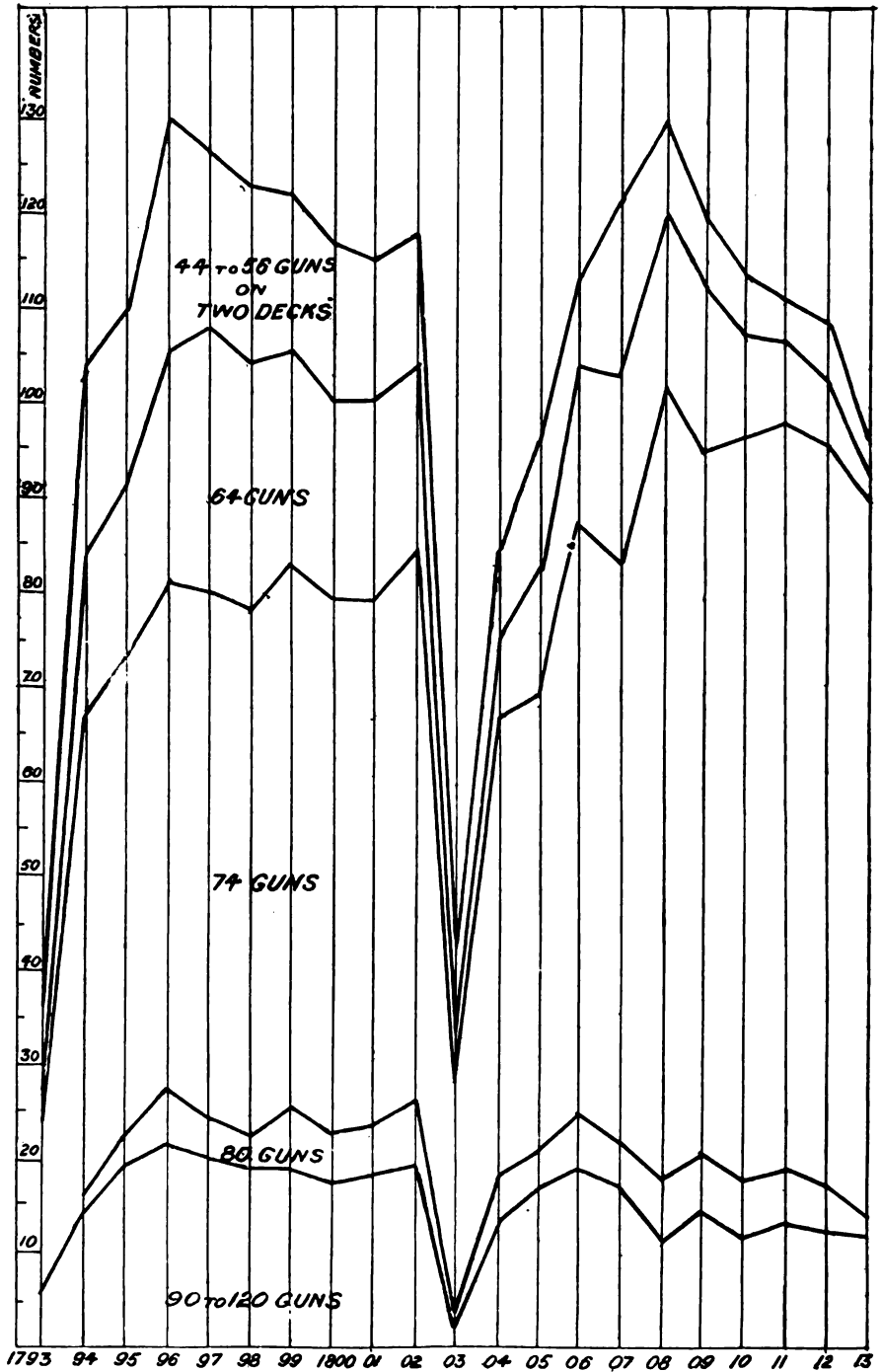


PLATE II —LINE-OF-BATTLE SHIPS IN COMMISSION FROM 1793 TO 1813.

increased. When the naval war practically came to an end in 1813, the 74 occupied almost the whole field. The border ships and the 64's had practically disappeared on the one side, there being but 4 of the former, and 2 of the latter. On the other side, the heavy line-of-battle ships of 80 guns and upwards had dwindled to a minimum, there being but 14 of them in commission. Their function was less a question of force than of accommodation, and the chief reason for their existence was the space they afforded to the admiral and his staff. But the 74's were no less than 85 in number, and if we regard the tendency of the curves as drawn, it is not too much to suppose that a continuance of the war would have seen the line of battle reach its ideal, and beheld it composed of a single type of ship, that ship being of the upper middle class.

Plate III. does for the cruisers what Plate II. has done for the line-of-battle ships ; it shows their growing interior differentiation. And here, in observing that the tables are all prepared from the elaborate "Abstracts" furnished by James in his naval history, we must note that James does not make the clear distinction between ships of the line and cruisers till the year 1803. It is as if the absolute wall which ought to exist between the two classes of ships and their function, had not struck him at an earlier part of his work. This, again, was a portion of the ancient inheritance, the ideal of promiscuous fighting, which these plates show to have been so utterly swept away in the long sea wars with France and Spain.

In Plate III. we can trace all the general tendencies of differentiation amongst the cruisers with great ease. Just as the weaker line-of-battle ship is seen to disappear gradually, carrying with it the border ship, so does the very heavy frigate of 40 to 44 guns, never very numerous, give place so as to increase and emphasize the impassable gap which separates the battle-ship from the cruiser. But when the gap is marked enough, that class of cruiser which should be specially the attendant on the fleet, and which is nearest to the gap, begins to grow. All through both wars there is a tendency in the 38- and 36-gun frigates to aggrandise and swell in their position. In the year 1809, when our navy reached its maximum force, there were 44 38-gun, and 36 36-gun frigates in commission, and next year they reached their highest development, there being 48 38-gun, and 49 36-gun frigates.

But side by side with this growth was the diminution in the number of ships carrying from 20 to 32 guns. While the proportion of these lighter frigates to the heavier had been in 1798, 74

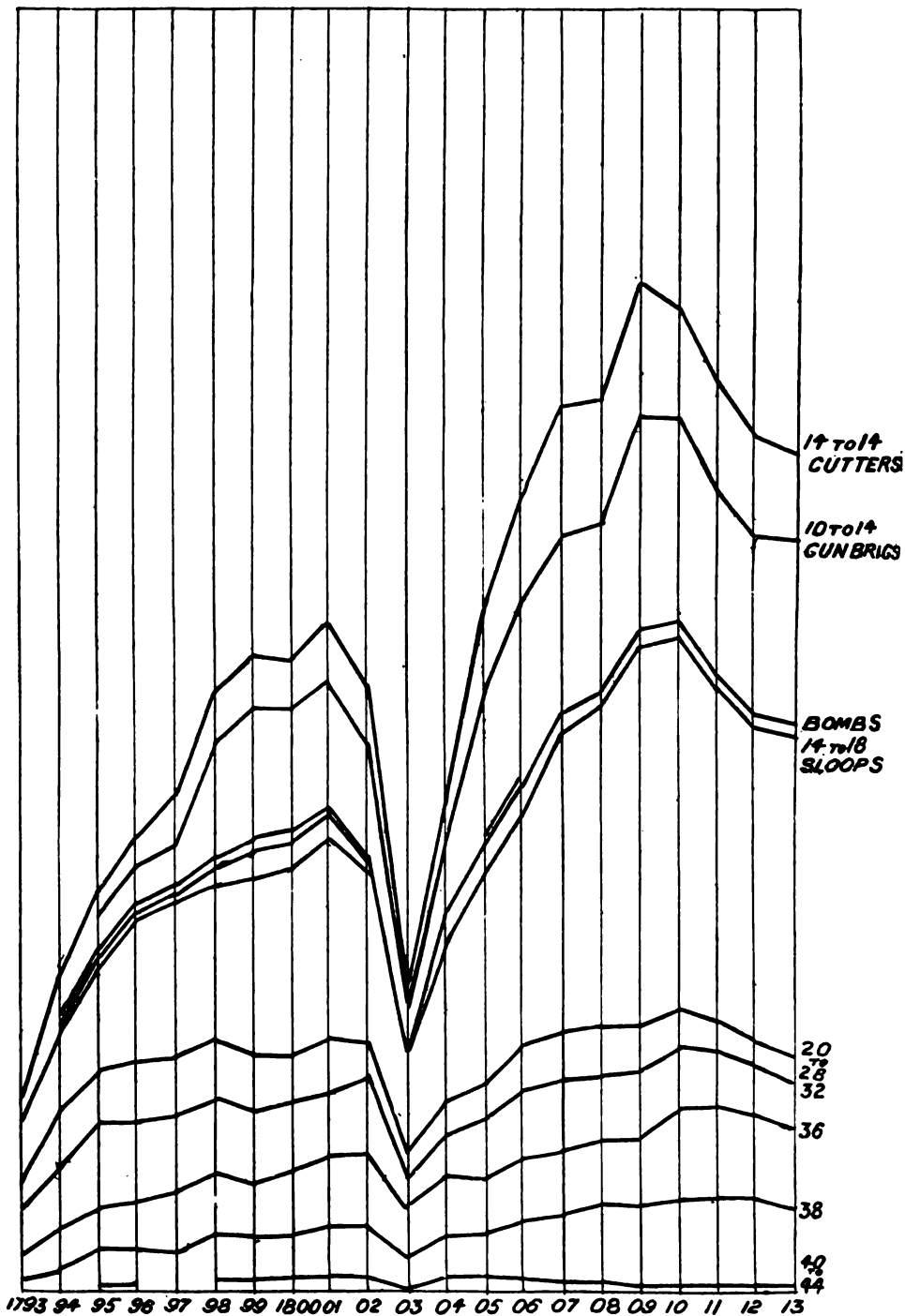


PLATE III.—CRUISERS IN COMMISSION FROM 1793 TO 1813.
 N.B.—The line which extends part of the way above the bombs represents fire-ships

to 55, in 1810 it had altered to 54 to 97, and in 1813 to 38 to 86. That is to say, that just as the gap between the line-of-battle ship and the frigate had distinctly established itself, so was the natural and proper gap between the frigate and the light cruiser in course of establishing itself. And then, as to these light cruisers, Plate III. shows us that it was there that the enormous increase in our navy took place.

In 1809 the cruisers of 20 guns and over in commission numbered 147, but, excluding bombs and special ships, the cruisers carrying less than 20 guns numbered no less than 403. And if we are to judge by the curves exhibited, there was from the first a continued demand for the services of these vessels, a demand which did not cease till the enormous total just given was reached. After 1809-10 we may presume that we had not only secured the command of the sea by the impregnable front of our line of battle, but we had everywhere so overspread the sea with these light cruisers that our own commerce threaded a safe way through them; the enemy's commerce could not show, and so great were the risks, that the attempts upon our own commerce collapsed.

I have now traced the differentiation of naval force through all its changes in England, and I think a case is made out to show that the state of the classes of ships continually developing, and brought nearly to complete perfection at the close of the Napoleonic war, is a permanent one; that it is of the essence of naval war that there should be battle-ships of uniform type, neither the most powerful that can be produced nor yet greatly below that type; that there should then be a class of ships altogether incapable of facing a battle-ship in fight, and in no way armed to attempt it, but of substantial character, with speed in a sea-way, the chief duties of which would be attendance on the fleet. There appears no reason in what has here been discussed why this type also should not be uniform. Then it looks as if the next type might fall to a great inferiority below the class just mentioned, but should make up for its individual weakness by its number.

The Crimean war was hardly a naval one; and if it had been otherwise, the changes from sail to steam, and from the paddle to the screw, both of which it brought to a head, would vitiate the results of any continuation of the statistics for that period; but it is not unworthy of remark that the war followed the example of Table III. in producing 155 small steamers, gun-boats, a class unknown before.

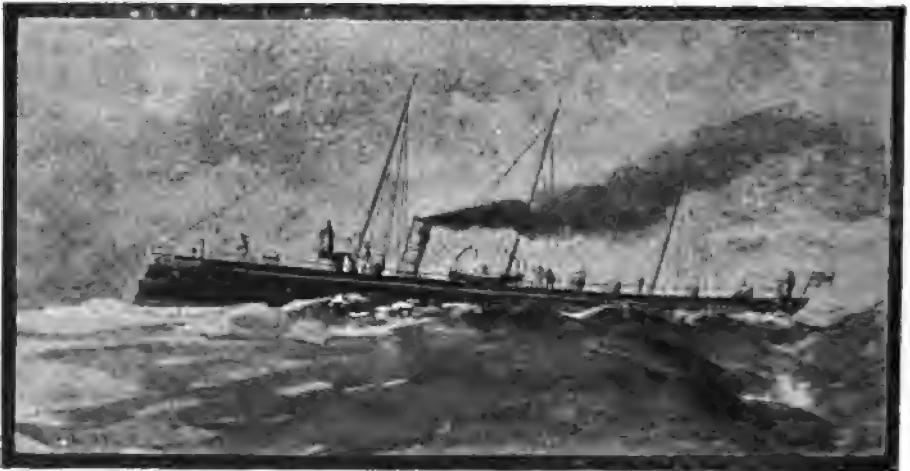
(To be continued.)

Torpedo-Boats in Germany.



THE accession of the present Emperor marked the commencement of a new era in the history of the German navy. A feeling has been growing in Prussia during the past five or six years that the German fleet should not be merely a defensive factor, but that it should be able on occasion to meet any but a first-class navy on the open sea.

The policy of Gen. v. Caprivi, late chief of the German Admiralty, was almost purely defensive. He advocated the construction



A GERMAN TORPEDO-BOAT CATCHER.

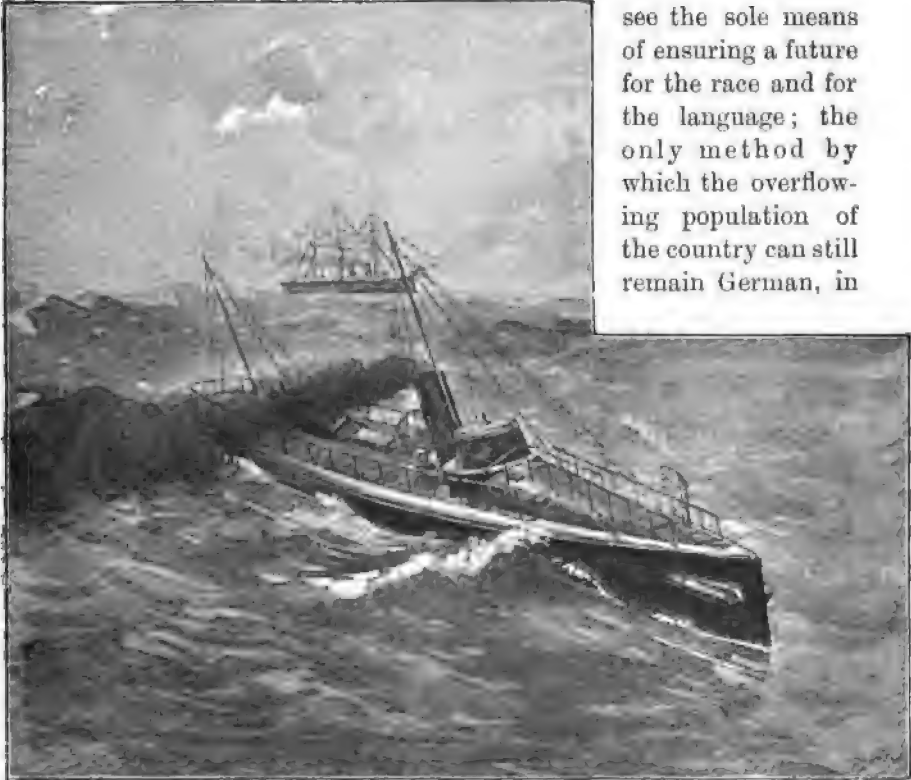
of a large number of fast cruisers and sea-going torpedo-boats with which to harass the enemy and his commerce, and trusted for the defence of the littoral less to a powerful ironclad squadron than to a combination of strong coastal fortification with a flotilla of torpedo-boats.

The old Emperor and even his successor seem to have been satisfied with this very limited naval programme; but it has been

strongly condemned by the new school which forms the *entourage* of the present Emperor. They wish to see Germany strong not only on land, but at sea ; and they look to the fleet as the only means of ensuring the colonial development of the Empire.

Despite the ill-success that has hitherto attended the efforts of the Chancellor to establish colonies in various quarters of the globe, the dream of colonial expansion is still dear to the hearts of most

Germans. In it they see the sole means of ensuring a future for the race and for the language ; the only method by which the overflowing population of the country can still remain German, in



A GERMAN TORPEDO-BOAT ON THE OPEN SEA.

place of becoming merged in the great Anglo-Saxon communities of America and Australia.

The rigid adherence of v. Caprivi to his policy of defence led to his recent retirement from the Ministry of Marine, and his successor has pursued a policy of naval expansion, which, if persevered in, will raise Germany to the fourth place among naval Powers. Large sums have been voted for the construction of new armour-clads, and a special flotilla of twelve ironclad gun-boats is to be

built during the next few years for the defence of the new Canal, the opening of which will almost double the effective strength of the German navy.

One of the most noteworthy points in connection with this new naval programme is the fact that it will almost exclusively benefit German dockyards, for, thanks to the care with which the ship-building interests of the country have been fostered, the Empire is now in a position not only to build her own ships of war, but to



compete with other nations in the construction of war vessels as a purely commercial undertaking.

Hitherto the German ship-building yards have been most

A GERMAN TORPEDO-BOAT FOR COAST DEFENCE.

successful in the construction of small vessels, such as gun-boats and torpedo-boats, and, indeed, the progress in this latter branch of naval engineering has been so great during the last few years as materially to injure the interests of this country. The Weser Company at Bremen, the Vulkan at Stettin, and more especially the Schichau Company in Elbing are now world-famed for the excellence of the craft which leave their yards. The Schichau boats claimed until recently to be absolutely the fastest in the world; for the constructors state that with the full complement

and equipment, and a coal-supply sufficient for 1,200 nautical miles, their speed for long distances exceeds 24 knots per hour. The larger torpedo-boats built by this firm are said, moreover, to possess considerable sea-going properties. One boat of 45 metres in length and 6 metres in beam, ordered by the Chinese Government, was sent home by sea without the slightest casualty.



Though the superiority of German over other torpedo-boats may be open to question, there can be no doubt that the Schichau yard is easily first in this branch of naval engineering in Germany. It has always led the way in German naval construction.

GERMAN TORPEDO-BOAT, WITH SPAR TORPEDO.

The company was founded in 1837. In 1842 it launched the first steam-boat built in Germany, in 1854 the first German iron screw steamer, and in 1877 the first German torpedo-boat, since when more than 150 torpedo-boats have been constructed in its yards.

The German navy was among the first to make practical trial of the sea-going torpedo-boat proper; and, without in any way attempting, as was lately the case in France, to displace the

armourclad by torpedo flotillas, the tendency in the Imperial navy is to extend the use of the torpedo as far as possible.

As in other navies, the torpedo-boats are united to form divisions of variable strength, which, in the event of war, would act sometimes independently, sometimes in concert with armourclad



GERMAN SAILOR ON TORPEDO SERVICE.

squadrons. Very great care has been taken in the selection of the crews of torpedo-boats, and both men and officers receive thorough training in their duties. These duties, in the case of the sea-going boats, are obviously by no means light, as was sufficiently proved



by the experiences of our own boats during the recent naval manœuvres.

The programme of torpedo-boat construction is, considering the extent to which the iron-clad will be used, a sufficiently comprehensive one. In the course of a year or two Germany will possess 7 torpedo-boats of over 200 tons displacement and between 20 and 23 knots speed, and 93 of from 80 to 140 tons displacement, with speed vary-

A TORPEDO-BOAT TURNING AFTER ATTACK.

ing between 14 and 22 knots—making in all a flotilla of 100 vessels.

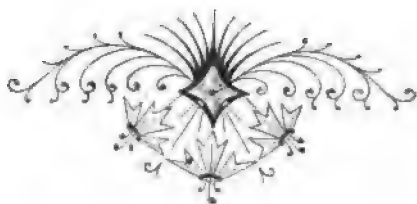
The construction of the new canal between Holtenu and the Elbe will enable this fleet to be used either in the North Sea or the



DEFENCE OF A GERMAN IRONCLAD AGAINST TORPEDO-BOAT ATTACK.

Baltic, as the need may arise, and they can be transferred from one to the other in less than six hours.

The canal, taken in connection with the expansion of the navy, will give Germany a preponderance in the Baltic, with which Russia cannot for some years hope to compete, and will place her at the head of second-class naval Powers.



The Galas of Insign Steel.

(From the Swedish of J. L. RUNEBERG.)



XI.

DRIVER SPELT.

Poor old Spelt ! And shall he be forgotten ? No.
 Driver in the train, no higher could he go ;
 And remembrance of him now had been but hazy
 Had he not been dubbed the laziest of the lazy.

Precious sight it was whereon to set the eyes,
He and the old animal he drove likewise ;
Seemed the biped as if every footstep grudging,
And the quadruped as if unpaid his trudging.

As the pace was, so the grooming and the care,
Matted was the horse's tail, the driver's hair ;
Greyling went with dirt from his own stable tainted,
Spelt his nose with soot from his own hearthstone painted.

Where the two appeared, the last of all the crowd,
Certain 'tis that laughter was both long and loud.
Blinking went the nag, on high his master slumbering ;
God knows how from off the load he kept from tumbling.

And thus journeying onward, slowly, day by day,
Higher, higher toward the North we made our way,
Half of Eastern Bothnia vanished had behind him,
But as if in Nyland ye were sure to find him.

Just the same likewise the journey did proceed,
Laughter ever followed Driver Spelt and steed ;
While to clinch the jest descended many a thwack
On the old man's shoulders or the creature's back.

No improvement in the pace was brought about,
Spelt was quite incorrigible, not a doubt ;
Ne'er a whip in camp could sting him thro' his rags,
And a well-tanned hide of leather was his nag's.

Thus they drew nigh unto Sikayoki's strand,
But a frozen strip remained of Fatherland ;
Even this was now to be abandoned, spoiled,
But the weak may be avenged, the mighty foiled.

Won our first engagement ere the evening came,
Into triumph changed was sorrow, flight and shame ;
And the ebbing tide, low-water mark on reaching,
With a rush returned to flee the foeman teaching.

Soon from rank to rank the order swiftly sped ;
"In the morning be prepared to march ahead ;
Troops and baggage be arranged ere night descending,
Joyfully to start at daylight, southward wending."

All was ordered. It was night ; in peace we slept.
Only youthful Ensign Bloomer vigil kept ;
Ardour and ambition fired his gallant breast,
Sultry seemed his hut, inside he could not rest.

Forth he came, but dark and quiet all things seemed ;
Placid stars on high with frigid lustre gleamed ;
Only in the East, the pine-trees' summits through,
Dawn of day appeared, a streak of reddish hue.

Not a soul was stirring ; waggons with their load,
Still without their teams, faced northward on the road.
All was as before without a variation,
'Twas as if retreat was still in expectation.

All was as before ? Not so, 'twas changed a bit,
Tho' the eye at first did not distinguish it ;
For the cart which drove up latest in procession,
Now had turned about and ta'en the foremost station,

And beside the reins a pattern driver stood ;
Bloomer could not trust his eyes—'twas Spelt. How good !
He who thro' the land had marched as double bent,
Now had by a head increased his height's extent.

As a stripling lithe, erect his age he bore ;
On his shoulders plenteous silver tresses pour,
And his face was sleek, the soot was washed away,
Brighter seemed by night than once it did by day.

Ensign Bloomer was dumbfounded by the sight ;
" What on earth, old man, hath changed thee so to-night ?
Thou, who formerly wast famed for dirt and sloth,
Now before the rest art washed and ready both.

" Who hath purged thy countenance from dust and soot ?
Who in thy grey matted locks a comb hath put ?
Who hath roused thee up, for that's the strangest thing,
Who before throughout the day wast slumbering ? "

" Youthful Sir," the old man calmly made reply,
" Men march slowly when from home they have to fly ;
When one sees our soldiers run with terror quaking
Then is slumber better far for one than waking.

“ Wherefore should I care to wash my wrinkled face ?
Blushes which it showed that other men might trace ?
Willingly I bore both mockery and blows ;
Sorrow was within, hence soot upon my nose.

“ Now all things are changed ; no more the army flies,
Finland wide as heaven before us open lies.
Since our country's honour without spot remains,
Men may cleanse their brows from dust and filthy stains.

“ Rouse the army up, and roll the rapid drum,
Night is passed away, and brilliant day hath come !
Formerly we hurried, when it was misplaced ;
Now, young gentleman, the time hath come for haste.”

H. S.



Artillery at the Paris Exhibition.

I.—THE ENGSTRÖM GUN.



THE great majority of the military exhibits now on view in the Champ de Mars are of considerable interest, and many of them are deserving of minute consideration. Space, however, restricts us to a brief review of the most recent improvements which have been effected in the manufacture of artillery.

The *Revue d'Artillerie* has published an excellent paper, by Captain Veyrines, on the subject; and the writer, after having briefly enumerated the articles of a warlike nature which are exhibited in their various groups, turns his special attention to the ordnance produced by various manufacturers.

The *Société Anonyme des anciens Etablissements Cail* has a considerable number of mountain, field, fortress, and siege guns, all constructed according to De Bange. This system being tolerably well known, we shall not touch upon it, but pass at once to the quick-firing gun invented by an officer of the Swedish navy, Lieutenant Engström. The peculiar interest attached to this gun consists in the manner of closing the breech, which is effected in such a way that ignition is impossible before the breech is completely closed. His system, then, appears destined to prevent that numerous class of accidents which result from imperfection of the breech-closing apparatus.

There are two sorts of Engström gun, both of the same calibre, 57 mm. ($2\frac{1}{4}$ in.), both quick-firing, and the only difference between them being in their length and weight. The lighter of the two (which we are about to describe) may be employed to flank ditches, or as a field gun; the heavier is meant for use against torpedo-boats. The lighter gun is 1,495 mm. in length ($58\frac{3}{4}$ in.); it weighs 200 kilos, and throws a projectile of 2,750 grammes, with a charge of 600 grammes, and an initial velocity of 450 metres: The maximum of fire is forty shots a minute, but the average rate is

thirty. The closing of the breech is effected by means of two pieces of mechanism: the bolt A (Fig. 1) and the block D, which revolve on two axes O and O'. These two axes pass horizontally through four ears, symmetrically placed, two at the upper

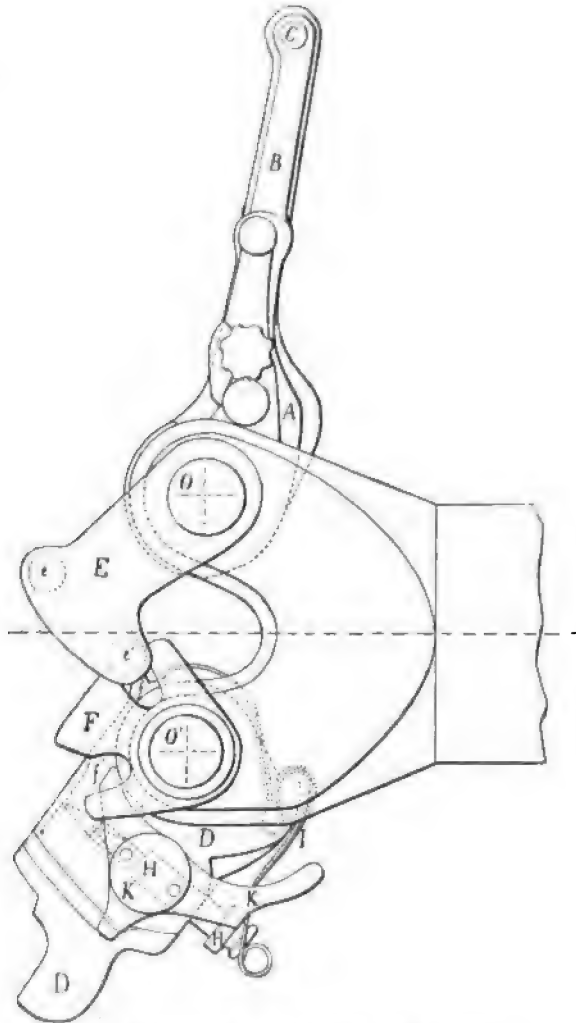


FIG. 1.—BREECH OPEN READY FOR LOADING.

and two at the lower part of the breech. The bolt is worked by means of a lever, B, at the end of which is a handle C; and the bolt directs the movement of the breech-block by means of a second lever, E, which is mounted on the axis O, and the two cylindrical

tenons $e\ e'$ of which, act successively on the mortises $f\ f'$ of another sector, F, mounted on the axis O' . It works as follows :—When the breech is to be opened the bolt is raised by means of the lever B (Fig. 1) ; the tenon e first of all enters the mortise f , causing the sector F to revolve backwards (see Fig. 2, the position of the sector F when the breech is closed) ; when the tenon e has left the mortise f , the tenon e' enters the mortise f' , which causes the sector F to describe a revolution forwards ; and this, drawing after it the whole block, leaves the breech open for the introduction of the charge.

The closure is effected by drawing back the lever B to its original position. In this movement the sector F is made to describe a

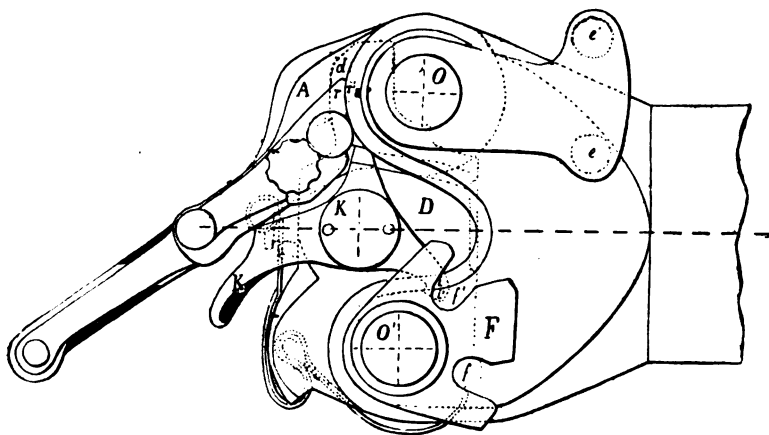


FIG. 2.—BREECH CLOSED READY FOR FIRING.

revolution in a direction contrary to that by which the breech is opened ; the block re-ascends, and when the lever B has reached its lowest point, the bolt A rests against the face d of the block (Fig. 2) and keeps it in position.

The block D contains the firing mechanism, which is effected by means of the striker H, which acts either automatically or by a pressure of the finger on the trigger K. A spring I, which is at full cock when the breech is opened, acts on the striker when it is released by the trigger and drives it forward.

The closure of the breech is made complete by means of a kevel R, provided with a nose r , which fits into a mortise r' (Fig. 2). By this arrangement, it is possible, by acting on the lever B, to alter the elevation or lateral direction of the piece without fear of

opening the breech. Thus, when it is desired to open it after firing, the nose *r* must be disengaged by pressing lightly on the back part of the kevel before using the lever B.

As regards the contrivance for preventing a discharge before the breech is entirely shut, it is extremely simple and ingenious. The trigger K is provided with a nose *i* (Fig. 2) which, during opening and closing, revolves about the circumference of the right-

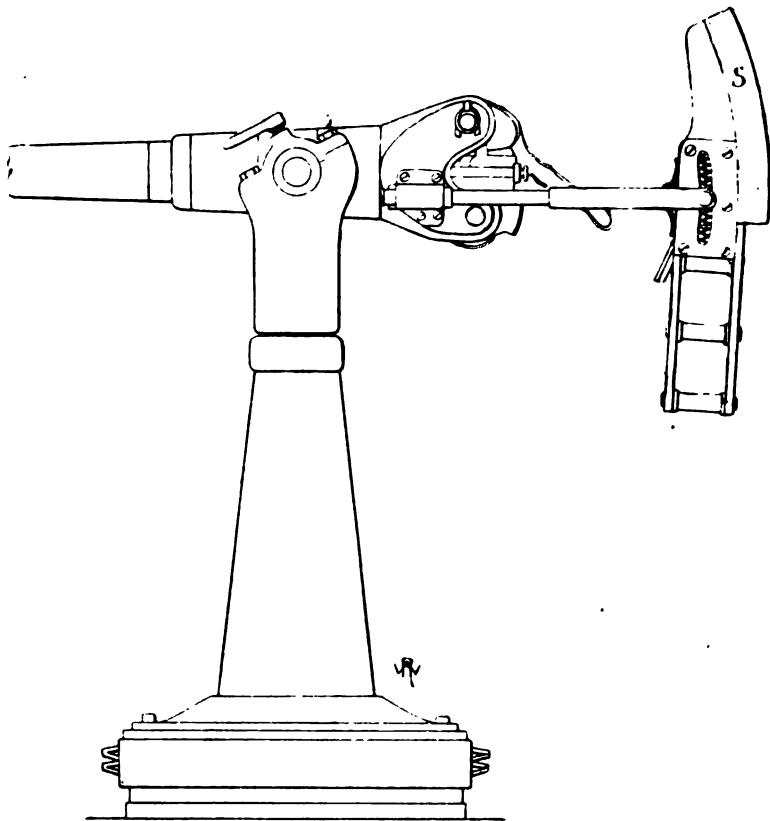


FIG. 3.—GUN WITH BUTT-END ATTACHED.

hand lower ear of the piece, and is, therefore, in a raised position till it slips in a notch cut in the ear. Then, and then only, is the closure of the breech complete and the gun ready to be fired.

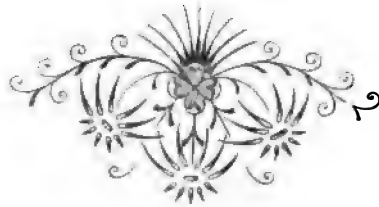
The cartridge-case is removed by two independent extractors, which operate during the opening movement and expel it from the breech. Engström's light cannon is mounted on a carriage, supported by an elastic pivot, and provided at its base with Belle-

ville springs for absorbing the *vis viva* of the discharge. It is also fitted with a butt-end S, to be placed against the shoulder of the firer.

Such, in broad outline, are the principal mechanical contrivances of Engström's system. It is possible that, with certain modifications, his method of closing the breech may be adapted to suit heavy ordnance, in serving which accidents resulting from imperfect closure are unhappily of too frequent occurrence.

R. W.

(To be continued.)



Soldiers' Homes and Institutes.



WE have before us a copy of a very little known book, *Recollections of an Eventful Life, chiefly passed in the Army*, which was published in Glasgow in 1825, and which gives a very vivid picture of a private soldier's life in peace and war during the early years of the century.

To all of us who are familiar with the British army of the present day, it seems almost incredible that the men who so nobly maintained the honour of their country in the great wars which decided the fate of Europe were enrolled and trained in the manner described in these *Recollections*, and led the lives, in and out of barracks, which they bring before us.

We read of a jollification in a barrack-room, principally paid for by money extracted from newly-joined recruits, part of the bounty which tempted them to follow the drum.

When night came, the room was cleared and the forms ranged around. An old Highlander in the room had a pair of bagpipes, which, with two fies, constituted our music. When all were assembled, the drinking commenced, handing it round from one to another. After a round or two, old Donald's pipes were called for, and the men commenced dancing with the women of the company. The stamping, hallooing, and snapping of fingers which ensued, intermingled with the droning sound of the bagpipes, were completely deafening. In the confusion, some of the thirsty souls took the opportunity to help themselves out of their turn, which, being observed, caused a dispute; and, the liquor being expended, a join of a shilling a man was proposed to "carry on the glory." I was again applied to for my shilling; and, aided by this fresh supply, they kept up "the spree" until one o'clock in the morning. When some of them who had got drunk began to fight the lights were knocked out, and pokers, tongs, tin dishes, &c., were flying about in every direction. At last, the affair ended by the officer of the guard sending some of them to the guard-house, and ordering the others to bed.

What a record of disorder! Could anyone imagine such a scene taking place, as a matter of course, and not entailing any serious notice in the well regulated and decent barracks of the present day?

Again, the misery of a transport is described :—

Stowed away like any other part of the cargo, with only eighteen inches allowed for each man to lie on, we had scarcely room to move. The most of the men became seasick, and it was almost impossible to be below without becoming so. The women particularly suffered much: they were crammed in indiscriminately amongst the men, and no arrangement made for their comfort.

Many people have seen the magnificent Indian troop-ships, with their multiplicity of comforts, decencies, and conveniences, which, in our own times, yearly transport our soldiers and their families to and from the distant East; but even in the smaller craft, which carry the reliefs to Ireland and the Channel Islands, and in the great ocean steamers, which are taken up for Government use when troops have suddenly to be moved to the scene of one of our small wars, each man, woman and child is placed in circumstances of comfort which only ask for a calm sea to be nearly complete.

To quote the heartrending description of the scene when the regiment was ordered on foreign service and the soldiers' wives had to draw lots for the privilege of accompanying their husbands would be too long, but it accentuates the kinder manners and regulations of to-day. Misery and sad partings there must always be in the life of the lass who loves a soldier; but partings now are not necessarily for ever or even for a prolonged time, as in days past, and they are partially alleviated by the knowledge that there are many organizations of kind souls which extend a helping hand to those who are left behind.

The life of a garrison town and the daily companionship and surroundings of the soldier in his leisure hours were on a par with the brutal discipline* and the debasing associations of barracks.

Blackguardism bore the sway and gave the tone to the whole. Even the youngest were led into scenes of low debauchery and drunkenness by men advanced in years. All, therefore, with few exceptions, were drawn into this overwhelming vortex of abject slavishness and dissipation. . . . If a soldier did not join with his neighbours in their ribald obscenity and nonsense, he was a Methodist; if he did not curse and swear, he was a Quaker; and if he did not drink the most of his pay, he was called a miser, a d—d mean scrub, and the generality of his comrades would join in execrating him.

What a life to be led by the men to whom the glorious task of defending their country on a battle-field was to be entrusted :—

How can man die better than facing fearful odds,
For the ashes of his fathers and the temples of his Gods.

And how we wonder that this noblest of ends was prepared for, and

* The author tells of a poor wretch who received 500 lashes for being ten minutes late for tattoo.

not only prepared for but achieved by men who had undergone such a mean and brutish preparation.

We have chosen to refer to these sketches of military life in times not so very remote, because we would emphasize the change that has been carried out in the way in which England now treats her fighting men, and to show that though something still remains to be done, much has already been accomplished to ensure that the soldier, mentally as well as physically, is raised to the level of his great duties, and is enabled to train himself to become in his mature years one of the worthiest citizens of his mother country.

It is not so much our purpose now to dwell upon the ameliorations in the soldier's condition which have been effected in the army itself either by Government or by strictly military agency, though these have been many and great. Improved cooking and rations; better and less crowded quarters; separate and commodious accommodation for married people; recreation rooms; well regulated and well supplied canteens, the profits of which are expended for the soldier's individual benefit instead of filling the pockets of a greedy canteen-keeper; coffee bars and stores of the best of groceries and provisions, sold at the lowest possible price, from which the soldier can procure at any time hot tea and coffee, and extra articles of appetizing food for breakfast and supper; and last, not least, copious and well chosen libraries of entertaining and instructive literature to while away his leisure hours.

It is easy to conceive what an effect all these changes and improvements must have had on the condition of those who join the land forces of the Crown, but we wish particularly now to consider one of the influences, outside of barracks, which has been brought to bear on the soldier's social life, and the object of which is to give him an alternative resort from what was generally the only place open to him, the bar of the public house, with the more than equivocal company which he too frequently met there.

The want of some haunts of unquestionable respectability is more than ever felt now-a-days, when so many men of good connections enter the ranks, and when so many soldiers wish to qualify themselves for commissions, not only by learning military duties, but also by separating themselves from lowering associations and undesirable companionship.

The very right and impassable barrier which divides the commissioned ranks in the army from the others, and which adds so much to the dignity and influence of the former, of course precludes the private soldier from belonging to any institutions or

frequenting any gathering places where he would be brought in contact with his officers ; and the very unfortunate prejudice which still exists in many circles against wearers of the Queen's uniform* makes a soldier ill at ease in frequent circumstances, when he should rather be marked for deference as belonging to a noble profession.

The place has generally been wanting where a soldier could lounge at his ease, could feel himself at home, and could, for a time, shake off in congenial society the pressure of the constant supervision and interference which form a necessary part of his life in barracks. If, too, soldiers have ever wished to meet together for serious objects, or, if the more sacred influences of home life were to be preserved and freshened, it was not always easy to find a quiet place available for the purpose. The accommodation in most barracks is too limited to allow of a large room being permanently devoted to such ends ; and, despite the care and attention of clergymen, Scripture readers, and others, many lads who joined the army with the memories of a mother's or a pastor's teaching fresh in their minds, had those memories blurred and dimmed, or altogether effaced, by the constant friction of the world, its pleasures and duties.

Probably the first person who recognized the want of such a resort for soldiers outside their quarters was one of the truest friends that the lower ranks of the army have ever had, Sir James Outram, the Bayard of India ; or, if he did not originate the idea, we know of no other before him who carried it to a practical result. In a large Indian station he established the first Soldiers' Home, and we believe that the Institution founded by him still flourishes and carries on its beneficent work.

It is only, however, within a very recent period (we believe little

* *Apropos* of this, we remember hearing the present Archbishop of Canterbury, in an address to soldiers, tell the following anecdote:— "It was now some years ago since he (the Archbishop) was thrown for two or three hours into the company of a very fine, soldier-like private in Her Majesty's service, and they had some conversation, and very good and interesting talk it was. The soldier at length said to him, 'I think it is very kind of you, Sir, to talk to me in this way for such a long time. It is not often that people do talk to me now.' He replied, 'I don't quite understand you,' and the soldier said, and it was with great sorrow he heard it, 'It was not at all what I expected, for people seem to be almost ashamed of me now, Sir, that I am a private soldier.' 'Well,' he (the Archbishop) said, 'my lad, don't get any such fancy into your mind. If any people behave to you as if they were ashamed of you, just comfort yourself in thinking that *your country* is not ashamed of you. Just comfort yourself by that thought, for people are proud of you, and all that we want is that you should be worthy of the splendid vocation which you have chosen.' "

over twenty years) that any attempt was made in the garrisons of England to establish Soldiers' Homes or Institutes on a scale sufficiently large, and with appliances sufficiently attractive to take a considerable part in the lives of a great number of soldiers and to assume a conspicuous place among the benevolent institutions of the country.

As is the case with so many undertakings in which sympathy, self-devotion, and generous feeling are the mainsprings of action, the leaders in the movement for establishing Soldiers' Homes and Institutes have been women, and, if we may say that the tap of the English drum follows the sun's course round the world, we may safely aver that, wherever that drum beats, it is heard by many men by whom the names of Miss Daniel, the foundress of the Soldiers' Home at Aldershot, and Miss Robinson, who has undertaken even more comprehensive work at Portsmouth, are remembered with gratitude and affection.

Through good report and evil report these most valiant and excellent ladies have striven onwards to make their organizations successful in carrying out the great aims which they proposed. The difficulties which they surmounted were of no trivial kind. Such were caused not only by unpromising circumstances, the want of means or the *vis inertiae* of callous indifference which was generally encountered; they had also to meet abuse, which was poured upon them in terms sufficiently rancorous and epithets sufficiently galling to have disgusted any persons less convinced than they were of the value of the cause which they had in hand. Now, however, their reward has come, and, if imitation is the truest form of flattery and the surest pledge of success, they must have very deep gratification in seeing the many Soldiers' Homes springing up in garrison towns all over the kingdom, which are almost entirely moulded on the lines which they have laid down, and guided by the rules which they have established.

We may venture to draw upon some small experience of the working of Soldiers' Institutes to lay before our readers some of the principles on which it has been found most expedient that they should be organized, and some of the requirements which each should fulfil before it can be successful.

The first question which invariably comes forward for consideration is the great and difficult problem of the present day, whether facilities for procuring alcoholic liquors should or should not be freely given.

We have heard this moot point very keenly and closely debated,

and we have no hesitation in saying that, in the organizations which we are discussing, the strictest temperance principles should be maintained. The strong opposing argument is frequently brought forward that, in establishing what is practically a club for soldiers, they should be treated as men, not as children, and that reliance should be placed on their self-control and self-respect not to exceed, but only to take advantage duly and moderately of such stimulants as might be placed within their reach. The analogy is cited of workmen's clubs, as they exist in many villages and towns in England, where numbers are able to go, when their day's labour is over, and drink their sober pints of beer while they read the newspapers, or indulge in a friendly gossip with their neighbours.

The cases, however, are not really parallel. The workman, in his own house, has no supply of beer, and when he wishes to drink, however little and temperately he may indulge, he must go out for the purpose. If beer is not provided for him at his club, he must go to the public-house, and when once he is there, putting aside the improbability of a weary man taking the trouble to move from one place of resort to another, is it to be supposed that the well-lighted tap-room and the many attractions which will there be offered to him will not be sufficient to detain him where he is, and throw the more sober attractions of his club into the background? He may possibly not exceed very much, but he will almost certainly drink more than he would have done in any other place, and he will very surely pay more for his liquor and drink it of a more deleterious quality than if he had been able to procure it at a club, which is managed probably on co-operative principles, and is not obliged to resort to every expedient to get a handsome return from its bar profits.

It is therefore a wise and proper provision that, in a workmen's club, good beer should be provided. The *genius loci* is opposed to excess, the older members exercise a certain restraint, by force of example, on the younger ones, and if the poor man is not deprived of his beer, he drinks it reasonably and within the strict limits of moderation.

The case of the soldier is very different. In every barrack a canteen is provided, where men may get what stimulants are wanted by them, and it is quite unnecessary and indeed only an unreasonable temptation to give further opportunities of drinking. In many corps men are very properly encouraged to drink their proportion of beer or porter at their dinners instead of drinking

either before or after eating. But many soldiers have a prejudice in favour of what they call a "dry" meal, and prefer to adjourn to the canteen after their dinner to have their malt with their smoke. In any case, however, the soldier has ample opportunities of satisfying his legitimate thirst, and to give him more than this is unnecessary.

There is also a very possible contingency to be guarded against in an institution which should always be marked by the utmost propriety of conduct, whose propriety of conduct is indeed its most important *raison d'être*, as making it a comfortable and quiet retreat for the better class of men in the ranks. If stimulants were there provided, it might well happen that a man, who had already elsewhere arrived at the limits of moderation in drinking, would be tempted to take the one extra glass whose consequences would be fatal to his head and very probably to his conduct.

The provision of stimulants at a refreshment bar, moreover, involves much greater trouble in supervision, and, a matter of no small importance, much greater expense in management. It, too, would place the Soldiers' Institute in direct competition with the public-house in its own particular line, and place it on a lower social level in every way than it is desirable should be the case.

It has been urged that, by providing good beer as one of its attractions, a Soldiers' Institute would be made, from this source of profit, practically self-supporting, and that assistance from outside would no longer be required. But even if this argument were supported by facts, which we gravely doubt, we maintain that the collateral disadvantages of the system would infinitely outweigh its advantages.

It has been found that a very fair return can be derived from the sale of the more innocent refreshments, and we may hope that there will always be a sufficient number of persons who are anxious to benefit the army, and who will make good the balance of yearly expenses which is not provided by this return.

One of the most important adjuncts of a Soldiers' Institute, and one which has a very great influence on its popularity, is a provision of good bath-rooms, fitted with copious supplies of warm water, &c. &c. Cleanliness is akin to godliness, and, in every effort to raise the moral tone of those who serve in the ranks of the army, it is right that the truth of this proverbial expression should be recognized. The normal barrack arrangements for washing are on a very limited scale, and calculated only to provide for attention to a small portion of the human surface. True, in many military

stations, hot baths have been established, but so few in number compared to the strength of the garrison that only a very small percentage of men can make an effective use of them. Comfortable appliances also cannot of necessity be supplied. Well-aired towels, brushes, looking-glasses, and the small *et-cæteras*, whose presence in a household is so common that few of us realise how great a part they take in the conveniences of our daily lives, are all absent, and it is a real boon to many men to make them members of an Institution where they can enjoy the luxury of a prolonged and complete toilet.

The sleeping accommodation in our Institution must not be forgotten. Too often when a soldier is on leave, and his own home is not within reach, there is no place open to him where he can procure a bed at a reasonable charge, except in some tavern or lodging-house, where the atmosphere, if it does not actually reek of vice, is far from being uncontaminated, and where he has no direct incentive to turn himself out smart and clean, a credit to the profession to which he belongs.

The Soldiers' Institute here provides for his wants in placing at his disposal a clean and comfortable bed in an airy room, where he can sleep peacefully, undisturbed by the long drawn notes of the *réveillé*, or gruesome thoughts of turning out on a cold winter's morning for early stables or harassing fatigue duty; and, when he does face the world, he has had ample opportunity to appear smart, spotless, and burnished, before he sits down to enjoy his comfortable breakfast and read the morning paper.

Nor are lodgings provided only for single men. The wants of soldiers' families, some of them in humble circumstances, have been foreseen. Parents may have come from a distance to visit some poor fellow who is sick in hospital; or, before drafts start to replenish our regiments, batteries, and battalions, in India or the colonies, a family may come to the garrison town to see some loved one and bid a last farewell ere the band strikes up "Good-bye, Sweetheart, good-bye," at the head of the departing warriors.

To such relations, father, mother, sister, and sometimes "a nearer one still and a dearer one yet than all other," the Institute opens its hospitable arms and provides separate accommodation for food and lodging of a better quality and at a lower rate than could possibly be procured elsewhere. And this special provision is far from unimportant.

One of the main objects aimed at by the promoters of Soldiers' Institutes is that there should be some available territory, apart

from his military existence, which should give to the soldier opportunities for preserving or renewing the ties that bind him to more tender ideas and relations of life than can possibly be cultivated in the monastic and somewhat selfish routine which he pursues in his quarters. Under the most favourable circumstances this can, of course, only be accomplished to a very small degree, but every arrangement that can be made to facilitate family intercourse is so much accomplished in the great task.

The national love of games has, obviously, to be carefully considered, and no Soldiers' Institute is so imperfect that games of all kinds are not freely and amply provided. And this is one of the points in which the public-house is altogether defeated. Instead of a well-worn billiard-table, with tipless and crooked cues, chipped balls, and pockets which draw as if furrows ran towards them, the Institute places at the soldier's disposal a first-rate table with perfect appliances. Bagatelle-boards of the same quality, backgammon, dominoes, chess, &c. &c., are ready to meet every requirement and suit every taste. It need hardly be said that gambling is not countenanced, but our experience tells us that this restriction is no drawback to the avidity with which all games are sought after, and the keenness with which they are played.

In completion of the attractions of solid comfort and quiet, it must not be supposed that the pleasure of the eye and the mind can be overlooked. Excellent reproductions of the best pictures, in prints and coloured lithographs, are so easily procurable in these days that there is no excuse for not having the walls of a Soldiers' Institute full of brightness and interest. The stirring battle scenes of Lady Butler, the "Rorke's Drift" of De Neuville, the "Sinking of the *Birkenhead*," telling the heroic tale of the discipline and valour of those who stood unmoved in the ranks while the ship went down beneath them; these and such like repeat the tale of past great deeds to a present generation, and recall the old regimental legends, which maintain the *esprit de corps* and chivalry of the British army.

Books, daily papers, illustrated journals and periodicals are in great request. The soldier of to-day is a great reader, as everyone must know who is familiar with the well-thumbed appearance of popular works in a garrison library, and nothing draws him to spend his time in one place rather than another more than a plentiful supply of literature, which gives him the best history, wisdom, and fiction of the past and the record of the current events of the present.

We have purposely left untouched to the last one point which concerns Soldiers' Institutes very nearly, because it is of the greatest importance, and we believe that upon its proper treatment depends almost entirely their success or failure. We mean the question as to the part which religion should take, and the amount of religious influence which should be brought to bear on the men whom it is desired to benefit.

It can hardly admit of a doubt that all organizations for the benefit of soldiers should be, in general management, absolutely non-sectarian. Every Christian creed is represented in the ranks of the English army, and everyone interested in any enterprise which has the general well-being of the soldier in view should think of the army as a whole, and not with reference to any particular creed or sect. If this great principle is conceded, we may pass to the lines of action which may be taken up and to the general result which each produces.

It is an undoubted fact that a great many of the various benevolent institutions which have been organized in British dominions have been so organized by people very deeply impressed with the importance of religion, who, with every desire for the material advantage of those whom they wish to befriend, look upon the material advantages which they confer principally as a means towards paving the way for religious instructions and giving an opportunity for enforcing religious precepts.

Who is not familiar with the distributions of tracts, the affixing of texts on walls, and the prominent religious tone which is given to most benevolent institutions, and the frequent sequel of prayers, hymns, and religious addresses which are generally attached to distributions of charity in every form? In fact, to put the matter rudely, we may almost say that the recipients of benefits are forced to pay for those benefits by experiencing or affecting some religious feeling.*

God forbid that we should depreciate the motives of those who make thus their charity a kind of mounting-block for religion, or that we would deny that in some instances their course of action is attended with a measure of success. But is there not a possibility of danger that an amount of hypocrisy is thus encouraged which

* As an extreme instance of what we mean, we remember a remark made naively and in all good faith by a parish clergyman, *apropos* of the small number of his flock who came forward for confirmation. He said, "I can't understand their not wishing to be confirmed, when they know how many parish charities are only open to communicants."

may cause the real good done to be wholly incommensurate with the injury to true religion which is perpetrated?

Among the most destitute as well as in every other rank and position of life there are numbers of persons who are truly and sincerely pious, and their feelings will not be greatly altered or strengthened by a marked religious colour being given to the conferring of the temporal assistance which they receive; but even with them the temporal assistance will certainly take the first and immediate place in their thoughts, while it may well happen that those who are irreligious will look upon the pious forms which are presented to them, whatever they may be, as meaningless additions, even if they do not learn to scoff at them as feeble ceremonies to be necessarily gone through.

It has always appeared to us that the greatest success in elevating the morals of men and impressing the influence of religion on their lives has not followed the crude and persistent presentation to them of religious forms of speech and outward signs of devotion so much as by lifting them to higher things by the removal of what is base, the discouragement of what is vicious and lowering, and the making them familiar as far as possible with what is good and noble in practical life and its surrounding influences. St. Paul certainly taught his "son in the faith" to be "instant in season and out of season," but he himself was also "all things to all men," and those who are earnest for religion may hope for at least as much success in following the example of the hardworking active daily life in the world of the tent-maker of Tarsus, who adapted himself heartily to every society, as if they pursued their own interpretation of his precept to make active teaching of the Word of the first importance.

And this tendency to push religion very emphatically forward which is so general in benevolent undertakings, has, we think, often had too great an influence in the manner in which Soldiers' Institutes have been established, very much to the lessening of their popularity among soldiers, and also possibly to the eventual weakening, in some degree, of their religious feelings.

It has been assumed by many people, somewhat hastily, that unless soldiers come under the sway of religion at what we have before said is primarily intended to be their club, they have no other chance of receiving religious impressions. This is far from being the case, however. In every garrison careful provision is made that all men shall have an opportunity of attending divine service. Clergymen of every different form of belief are provided, who minister to their wants, and, in addition, there is a valuable

organization of Scripture readers, themselves generally old soldiers, who are able to go in and out among the men, and approach them familiarly on the platform of the same personal experiences.

Prayer meetings, missions, &c. &c., are no uncommon events in barracks; and, though we are far from saying that a barrack-room is a very congenial place for serious thought, it is altogether probable that no class of men in the country is so little, continuously and of necessity, out of touch with their higher interests, or none whose higher interests are so assiduously cared for, as the soldiers of the British army.

It is not necessary, therefore, even if it were judicious, that when a soldier enters what should be a comfortable resort and place of social recreation, he should be confronted with texts and pictures of sacred subjects, and should find active agencies constantly at work, seeking at all times to engage him in religious discussions and exercises. Neither the soldier nor anyone else cares, in moments of relaxation, to be suddenly "button-holed" upon topics which certainly demand some preparatory consideration and what we may call a sympathetic frame of mind. If the men know that, whenever they enter the Institute, this may happen to them, the majority will assuredly be frightened away, and will go to any other resort in preference.

As in all other professions, there are in the ranks of the army some men of very deep religious feeling, and such men will, of course, gladly frequent a place in whose existence religion takes a conspicuous part. But while, unquestionably, the Institute is intended to be a quiet retreat for such men, we think that its objects should have a much wider scope. Nothing should be admitted which may deter from entering it those who have no very clearly defined tendencies, and who, if they there felt any *gêne* or embarrassment, would easily be induced to betake themselves elsewhere. It is the large majority of undecided youngsters, whose taste it is desirable, if possible, to lead away from the joys and attractions of the rowdy public-house, and to whom we wish to show that a manly and genial form of society can be found amid surroundings which have nothing doubtful about them, and which are not expensive to purse or character.

At the same time, although we certainly think it is undesirable that the atmosphere of a Soldiers' Institute should be, as it were, impregnated with religion, the establishment should most undoubtedly offer every facility to such men as may wish to join in any meetings or associations for serious or moral purposes.

We think that the principle which should regulate all Soldiers' Institutes has been most clearly laid down in Miss Robinson's Institute at Portsmouth. On one of its small advertisement cards, after detailing the numerous religious meetings which are there carried on, the following memorandum is added:—

Attendance at these meetings is voluntary; all soldiers and sailors can freely use the house, bar, coffee and smoking-room, billiard-room, &c. &c., without being expected to attend any meeting. The Institute is not intended only for religious or teetotal men: it is for all soldiers alike.

As we said above, we believe that there is a greater probability of soldiers, as of all other men, being lifted eventually to higher things, if they are first encouraged to remove themselves from base and lowering influences and brought into contact with a loftier theory of life and its surroundings, and therefore we say now with the fullest conviction of its truth, that, without any direct practises of religion, the simple withdrawing men from the influence of the public-house brings an enormous indirect gain to the cause of religion, and that a higher conception of life and its duties will certainly follow the higher tone of society and occupation.

Before parting with our subject, the question may very fairly occur to us whether the soldier's value as a man-at-arms is in any way affected by those softer systems and influences of the present day, one of which we have been discussing. And this is a question which cannot be answered off-hand and without attentive and very careful considerations.

It must be allowed that the first object of the soldier's existence, as a soldier, is that he should be imbued with that mixture of recklessness, bull-dog courage, *sangfroid* in danger and high spirit, which, combined with strict and unquestioning subordination to discipline, has made the reputation of English armies in times of trial and emergency.

The soldiers whose deeds are chronicled by Sir W. Napier and those who filled the squares at Waterloo were produced, as we have seen, under very different conditions from those of to-day. The soldiers who added the Empire of India to the dominions of the English crown knew nothing of the soft influences of comfort and culture. The greatest joys of the men, who steadfastly hurled back the Russian attacks at Inkerman, and charged into the valley of the shadow of death at Balaklava, were probably somewhat of an unrefined type. And yet, could the English nation, could any nation have ever wished for braver and more staunch

warriors to maintain its honour in the field? Can we say that, in times of trial in late years, our soldiers have surpassed, or indeed equalled, the achievements of their ancestors?

We can only say that, as far as trial has gone, we have seen no falling off in the national spirit of our troops. In the stricken fields of our more modern contests, no infantry has been called upon to rush, as at Badajos, "into the breach which, yawning and glittering with steel, seemed like the mouth of a huge dragon, belching forth smoke and flame*"; no cavalry has been bidden, as in the charge of the six hundred, to ride unquestioningly to almost certain death: but, may we not say that, when the time has come, our soldiers have responded to all demands which it has made upon them with the high spirit and tenacity of older times? The desert marches have proved their endurance; Isandhlwana and Maiwand, even if they were disasters, have shown a steady determination to die unbroken in their ranks, and no difficult or dangerous service has ever called for volunteers, without every available man expressing his eagerness to be employed.

Modern military history, too, bears us out in the belief that the soldier loses nothing in fighting qualities by being a cultivated man fresh from the mildest influences, and very far removed from (with all respect be the expression used) the professional gladiator of the past.

The legions which Germany poured across the Rhine in 1870, and which proved their manhood on the grandest scale and in the most undeniable manner, were filled with the science, culture, and social refinement of the nation.

We may cease, therefore, to doubt as to the results of our efforts to refine and elevate the soldier, in relation to his warlike efficiency. We know that these efforts have an overwhelming influence for good from every other possible point of view.

* Napier.

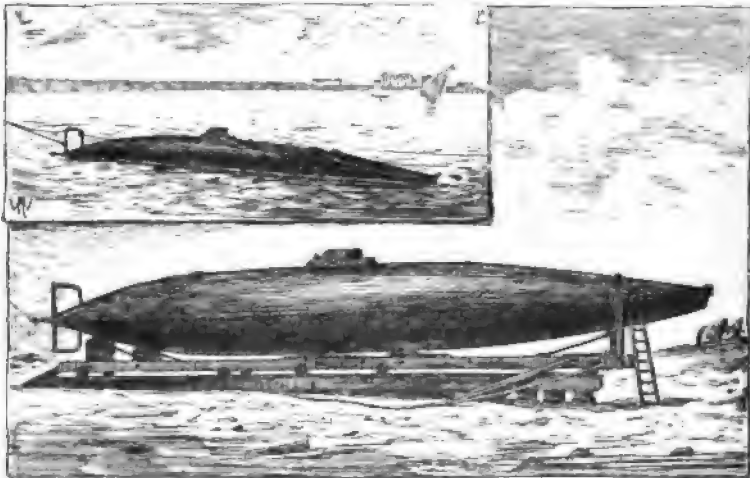


The Spanish Submarine Vessel

"El Peral."

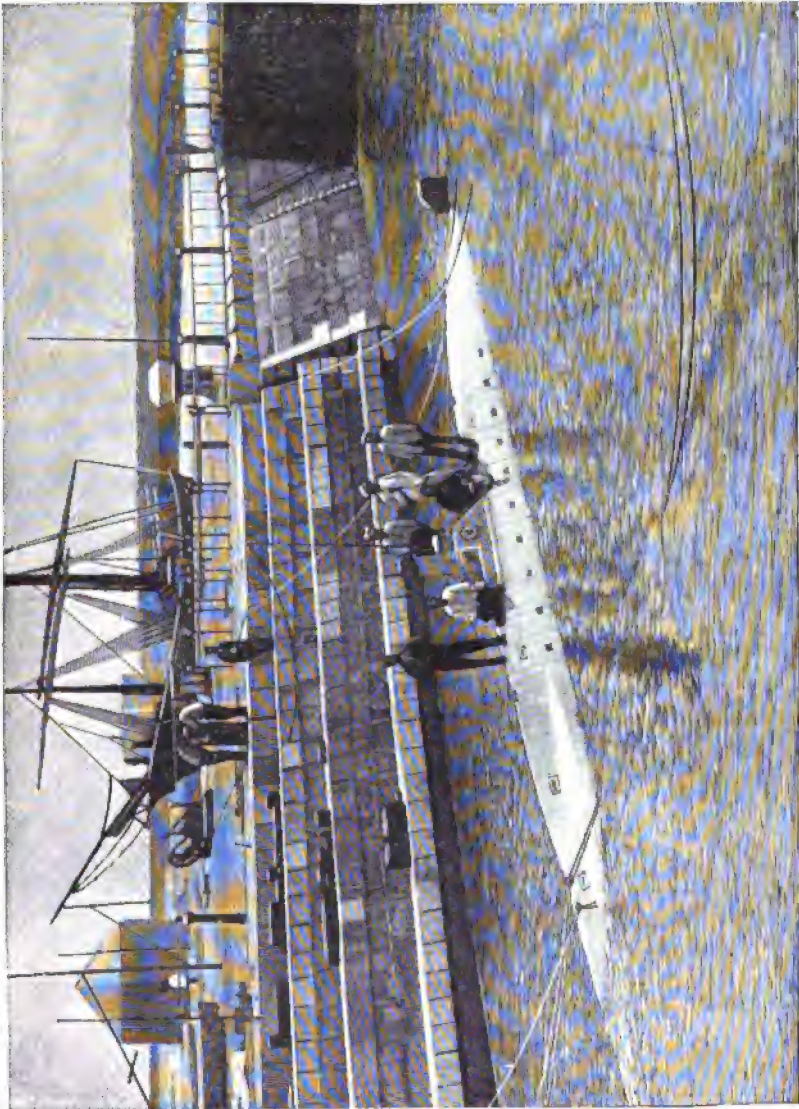


WE borrow from the pages of the *Ilustracion Española y Americana* the following particulars regarding Lieutenant Peral's invention. He is Professor of Physical Science in the Marine Academy, and in 1884 first conceived the project of solving the hitherto insoluble problem of constructing a submarine vessel. For some months, fearful of jeopardizing his hardly-earned reputation as a man of science, he kept his invention a profound secret, but at the time of the



THE "PERAL."

dispute with Germany in respect of the Caroline Islands, patriotism suggested that it would be almost criminal to conceal any longer a discovery which might be of so inestimable a value to Spain in





any future conflict. He therefore addressed himself privately to the Minister of Marine, and was immediately summoned by telegraph to Madrid in order to explain his plans of naval construction. A Commission was appointed to report upon them, whose first act was to call upon Señor Peral to furnish specimens of the class of motor he proposed to employ, and to demonstrate his method of ventilation. After some delay, caused by the limited funds at the disposal of the Spanish Marine Department, these trials were satisfactorily passed, and definite plans were sent in, which proposed to defend the coast of Spain by a number of submarine vessels, whose total cost would not exceed half that of a single first-class armoured vessel. The ingenious and simple mechanism by which Lieutenant Peral solved the problem of submarine navigation, is, of course, kept a profound secret, but it has been examined by the Queen Regent in person, the Ministers of Marine and War, and a number of distinguished naval and military officers, while the Committee of experts have reported most favourably thereon.

The *Peral* was built in the arsenal of La Carraca, the keel being laid on the 23rd October 1887, and she was launched on the 8th September 1888. She is shaped like a cigar, and measures 21·90 metres from stem to stern, and 2·74 in breadth. She is provided with twin screws, an electric motor, and tubes for discharging torpedoes. Our engravings represent the vessel ashore and afloat in four different degrees of immersion, in which the *Peral* was photographed while lying in the docks of La Carraca. In the first the vessel is seen floating on the surface; in the second the water reaches the level of her deck; in the third, the conning tower only projects above the surface; and in the final cut the flag-staff alone appears.

The following is gathered from a recent number of *El Liberal* regarding this much-talked-of steam-vessel.

The captain is installed in the little conning tower, from which, by means of a set of glasses of perfect transparency he looks in all directions, throwing light at will by the focus of the light under his control.

In that tower he has a perfect index and register of all the operations and manœuvres of the ship; in such manner that it may be said that this department is the brain of the submarine monster which communicates orders, and is directed by four officers according to the requirements of the manœuvre in hand.

The ship has room for fifty persons in case of need, and a tall





man can stand upright, and still leave the space of a hand's breadth above his head.

The last trial will be final, the *Peral* then proceeding to sea to make a voyage, the direction of which has not yet been decided upon. When she leaves Cadiz Bay, an old hull will have been placed at a distance of some two or three miles from her in order to be attacked. The submarine boat *Peral* will sink, and from a long distance go in search of the supposed ironclad, in order to discharge a torpedo to blow it up.

This will be the sign of success of the invention, and that Spain may reckon on possessing the most powerful engine of marine warfare in the world.

It is said that it will then continue its voyage. We are of opinion that it should reappear, says *El Liberal*, as at that moment all the guns of the forts and of the squadron should be discharged, enthusiastically saluting the clever Spaniard who has contributed so much to the glory of his country.

The popular anticipation is so favourable to the inventor, that amongst the people who have solicited a place on the boat may be mentioned, in the first instance, the wife of Señor Peral and three other young ladies.

To-day, proceeds the writer, he leaves Madrid on his return to the arsenal; may good fortune accompany him, as do our wishes, and those of all Spain, which is as interested in this submarine boat as it was in those caravels which, nearly four centuries ago, fitted out in the port of Palos to discover the New World.

Recent telegrams from Madrid inform us that the *Peral* has successfully undergone the supreme ordeal of submarine navigation in Cadiz Bay. The experiments were conducted with much secrecy. The Spanish Government will, it is reported, now order several vessels of this type for the defence of the coasts of the Peninsula.





COREAN PONIES IN THE ZOOLOGICAL GARDEN, ST. PETERSBURG.

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Wanderings of a May Artist.

NEW SERIES.

THE RUSSO-TURKISH WAR.

BY IRVING MONTAGU.

CHAPTER VI.



IF there is one form of *dolce far niente* more delightful than another it is, I take it, that of being not only under the soothing influence of tobacco but lulled into forgetfulness of the hardships of campaigning by a well-told tale. Williams rose superior to himself when, by general acclaim, he was persuaded to tell the Arab's story of "The Beauty of Bagdad," which he now proceeded to do, introducing as far as possible the peculiarities of diction which give to Eastern romance so peculiar a charm.

* * * *

"I will tell thee, brothers—and you, the white pashas from the green island—the story of Hassan the shepherd, and his daughter, the beauty of Bagdad, the fair Murada, whose loveliness was more dangerous to herself than to those it dazzled.

"It was in the fertile valley of Zagrahani, where the Indian corn sheds its golden glory, where the fig-tree flourishes and the babbling brook glistens in the noon-day sun; it was there that Hassan the shepherd, tending his flock, watched also the gambols of his only child, Murada, who, in all the blushing innocence of sixteen summers, was chasing and being chased by a comely youth of about her own age, till fatigued with their madcap frolic they went their several ways—he to the village khan, she to her old father's side, where ere long she fell fast asleep. Who shall say how proud Hassan was of that sleeping beauty, the living replica of the long-since dead kotona he had loved so well?

"There he sat, in a sort of day-dream, picturing what the future of his only child might be, though his wildest ambition did not soar beyond the pastoral delights of his own idyllic life, which had been one of pure love unalloyed by the tinselled and all-too-quickly-tarnished pleasures to be found in great cities and princely palaces.

"His chebouk had gone out; yet Murada still lay there dreaming the happy moments away, her bright golden hair falling in dishevelled masses on his arm—indeed, the old man had almost dozed himself, and probably would have done so, had he not been aroused by the tinkling of camel bells, and the sound of distant voices; all the bustle and commotion, in fact, of an approaching caravan, which, with a bend in the road, now came into sight, slowly toiling along in the direction of Bagdad.

"On arriving at the spot where the two were resting, one of the party, lagging somewhat behind the rest, drew rein that he might feast his eyes on Murada's loveliness.

"‘Shepherd,’ said he, in an ecstasy of admiration, ‘yonder you see the camel train of my master, laden with rich spices and choice raiments—all these and much more are the property of the merchant prince, the great pasha, to whom we are but as slaves. I would tell thee, O shepherd, that he is as wise and good as he is rich, and that to bask in his smiles is to enjoy a foretaste of Paradise. Therefore would I offer to thy fair daughter a home in his palace near Bagdad, the luxury of which is altogether beyond ordinary human comprehension; besides which, I am authorized to offer to thee, in return, whatever thou mayest desire in money and goods; so that, if thou so willest, thou too may from henceforth become also a rich trader, or settle down to the quiet enjoyment of accumulating wealth in the great bazaar.’

"Then Hassan, gazing fondly on his child, replied that for all the wealth of Asia he would not part with her—not even though the Caliph himself should demand her of him.

"So the stranger went his way, cursing the old man's folly at thus defying the dictates of *Kismet*, while the shepherd, in happy tranquillity, dozed away by Murada's side in the quiet enjoyment of their mid-day siesta.

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"Now, how long he slept it is impossible to say; but it was with a strange drowsiness that he awoke, and with something like horror that he discovered it to be night, and that he was alone—yes, alone—besides which, the prevailing aroma of a certain Eastern drug

raised in his mind the suspicion, but too well founded, that there had been foul play.

“‘Murada! Murada! Murada!’ his voice resounded through the valley, and re-echoed from the hill-tops. Then the mist was cleared from his eyes, and he saw that, taking advantage of him in his sleep, the insinuating stranger had returned, drugged them both with a subtle herb, and stolen from him his only child. Then the gloom of night crept over those dreary mountains which still resounded with the old man’s plaint—

“‘Where, oh, where is my Murada?’ and echo answered ‘Where?’

* * * *

“Bright and beautiful was the palace of the merchant prince, more especially that portion of it devoted to the ladies of the harem. Persian stuffs of exquisite colour lay in profusion on its marble floor. Curtains from Cashmere screened the too intrusive light which, coming through the stained glass windows, shed its many-tinted tones athwart Mooresque columns and cool seductive entries, where fountains played, grey doves cooed, many-coloured parrots fought for dainty bits of *rahat lakoum*; everything breathing, in short, of love and luxury, save where jealous eunuchs were to be seen guarding (black sentinels as they were) the fairest flowers in that proud pasha’s palace, all of whom lived only to stand in the sunshine of his smiles.

“All, did I say? No, not all; there was one who held herself aloof from the rest, repelling, with a quiet yet in its way awe-inspiring dignity, the most distant advances of her princely admirer. Indeed, the more she scorned the more he sought her, to the exclusion of all others, till at last, their envy becoming hate, the chief eunuch was consulted, with the result that she was secretly doomed by those women of the harem to death, to—as they put it in those parts—a cup of black coffee.

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“Now when it was known that the beautiful Murada had fallen a victim to the jealousy of her fair and frail sisters, it was determined that the news should not extend beyond the palace gates, lest the reputation of the pasha himself should be affected; yet, strange to say, it *did* creep out, even till it reached that far-distant village from which—now two years since—she had been stolen, during which time her poor old father, bereft of reason, had been relegated to the position of village idiot. When, however, all the details of his child’s terrible end one by one fitted themselves

together in his puzzled brain, the effect was startling. His vacant stare left him—all the purpose and energy of his earlier life came back to him; he had become as suddenly sane as he had, two years since, become insane. He lived again; and all those energies which had so long been dormant now concentrated with renewed force on vengeance. Nothing short of the death of that pasha could now satisfy him, and thus, armed with what weapons he could lay his hands on, he sallied forth determined, even if it took him months to get there, to ultimately make his way to the accursed spot where Murada had breathed her last, and then and there to compass that pasha's life or perish in the effort.

"Now it so happened that when within two days' journey of Baghdad, while partaking of the pilaffe supplied to him by a wayside khangee, he was accosted by a wise woman, closely yashmacked, who came from a gloomy corner of the khan in which he was; seating herself on the ground before him, she pierced him through and through with her bead-like eyes. She was a diviner, a witch, who knew at a glance the inmost secrets of his wounded heart.

"'Would you satisfy your craving?' said she, with a fiendish chuckle, as she drew closer to him. 'Would you punish the murderers of your child—would you cast a death-spell on the great pasha, his eunuchs and his wives, who have taken from you your beautiful Murada? Would you see Boabdil, he who supplied the poison, laid lifeless at your feet? Would you bring that proud pasha himself a suppliant for mercy before you—would you, I say, enjoy all the exquisite delight of vengeance—of hate, gratified? If so, then drink of the contents of this bottle. Drink! I say, to the dregs, that by its magic influence a curse may fall on her destroyers.'

"Then Hassan, with a look of supreme satisfaction, took the small vial from the sorceress, and drained it to the dregs.

"It was *Kismet*; revenge was his.

"Without uttering a word the old man fell to the ground, sinking back in the corner of the khan in a state of complete collapse. Then a peculiar settled, meaningless glare came into his eyes; his cheeks grew livid, a momentary tremor, and then—then all was still. Hassan was dead; poisoned by one of Boabdil's, the chief eunuch's, agents. He had heard of his approach, and sent one of his hirelings to intercept and poison the heart-broken father of the murdered girl."

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NEWS FROM THE FRONT.

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There was a pause, a thrill of excitement amongst that wild Arab audience when the story-teller finished his pathetic tale ; yet the sequel had yet to come.

"Listen !" said he, rising to his feet ; " I have yet a few more words to say.

" Hassan awoke. His chebouk lay by his side, his child still sleeping soundly in the folds of his long garment.

" It was a dream. Two hours only, and not two years, had passed.

" The caravan, the enamoured stranger, the powerful pasha, the jealous wives, Boabdil the eunuch, and the witch, had existed only in Hassan's fertile brain, which I," continued the Arab story-teller, " can at least vouch for, since I am myself Hassan the dreamer, whose daughter Murada—thanks be to Allah—is now the sunshine of a happy home, the faithful wife of the young shepherd to whom I introduced you at the commencement of this story."

Williams translated the Arab's story admirably, sustaining the interest so well that its ultimate end came upon us all as a surprise.

* * * * *

He is not a pleasant neighbour, your Arab, on a dark night though, however fascinating he may be in other respects ; so at sundown I gave special orders that no communication of any sort should be opened up with the swarthy horde outside our hut. Indeed, so particular was I with reference to this, that I said it should be death to anyone who disobeyed my instructions by leaving or coming into the place after dark ; having, at the same time, peculiar feelings of discomfort and misgiving with reference to Suleiman, who was still as savage and silent as before.

These necessary threats having been circulated, each retired into the driest corner he could discover " to sleep, perchance to dream " of Arab murderers looking for loot.

After lying awake listening for some time, to make quite sure all was safe, I must have dropped off to sleep, for it was some time in the small hours when I was suddenly awakened by a strange stealthy tread, accompanied by a mysterious creaking noise, which had evidently disturbed me.

I raised myself noiselessly upon my elbow, and saw in the otherwise pitch-dark hut what seemed to me to be a long perpendicular streak of silver.

Did my eyes deceive me ? I rubbed them, to be perfectly sure I was not still asleep and dreaming.

No! I was right. The streak of silver light became gradually broader and broader, till the figure of a man, black against the moonlight, stood peering into the interior.

For the moment I could scarcely breathe for excitement. What was the best step to take? Should I wake the others? No; there was no time for that. I must take the initiative, or we should probably all be murdered where we lay.

Silently I turned unseen by the intruder and levelled my revolver point-blank at his head, knowing as I did, our very lives depended on it, since an entry from without would undoubtedly mean death to us, and so awaiting my opportunity, I raised the trigger higher and higher; the inevitable click would seal his fate—his time had come.

I was so over-wrought at that critical moment that I verily believe I was totally destitute of all ordinary feeling; but, fortunately, at the instant I was about to fire the man turned, and there, black and sharply defined against the moonlight, stood out the remarkable and utterly unmistakable features of my faithful Johannes, who in another second would have been in eternity—to all intents and purposes saved by his nose!

How simple a mistake after all. Worn out with the fatigue of the day, he had been asleep when our plan of action with reference to those dangerous outsiders was settled, and having awoke in the middle of the night, had gone outside the hut to smoke a cigarette in the cooler open. I had not heard him remove the log we had placed against the door, hence the imminent peril in which he—without knowing it—had been; however, he never realised it, for I never informed him.

As Fate would have it, the next morning I was inspired with a bright idea, which immediately relieved me from further anxiety with reference to Suleiman, whose moroseness had become perfectly insufferable.

Calling him, I explained, through the medium of Williams, that I possessed a *magic* antidote to the lines of that fatal pencil, by means of which in an unhappy moment I had made a sketch of him, with which he himself might, by passing it rapidly over the paper, obliterate the evil for ever and thereby break the spell.

The effect of this suggestion was marvellous; his face instantly lit up with inexpressible delight; at first he took hold of the india-rubber with the tips of his fingers, in the tenderest possible manner, but on realising its miraculous qualities he rubbed absolutely for dear life. Bred and born in a remote part of

Anatolia. Suleiman had never even heard of *india-rubber*. He smiled again, and so did we.

Time went on, and days and nights succeeded one another till, without more than ordinary every-day incidents, we reached Trebizond.

Oh! how delightfully welcome was the fresh sea air, the comparative cleanliness, the kindly reception from Consul Billiotti and, to us, the palatial luxury of that little hotel where five months



ago Schamyl had interviewed us, or we Schamyl (we never could decide that point), who now, poor fellow, had found a soldier's grave in the neighbourhood of Kars. We were immediately beset and surrounded by crowds of people, all talking at once in their eagerness to know how things were going on at the front; and I think, had not the Consul promised that the news we brought should be circulated directly he obtained it, we should have been absolutely mobbed.

Williams on these occasions was always to the fore. Taking advantage of the confusion of tongues of which he was master, nothing gave him greater satisfaction than to ride on a little in advance of our party, assuring the natives in the towns and villages we passed through that those infidels who had not found a watery grave, by being driven *en masse* into the Black Sea, had long since beat an ignominious retreat inland, the quiet dignity with which he told his flattering tale, paving the way, as far as we were concerned, for a right royal reception wherever we went. True, it was not based on the strictest integrity, though it probably afforded them a better night's rest than they had for some considerable time enjoyed. On the other hand, we heard when at Trebizond how one of those two English adventurers who had joined the Circassians had been killed in action, while the other was then dangerously ill of fever in hospital; and, moreover, a romantic love affair was related to us, the scene of which had originally been Batoum, and in which O'Donovan had been the hero and a lovely Turkish girl the heroine.

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At this time Hobart Pasha's ironclads were busy in the Black Sea, blockading ports and striking terror generally into the ranks of the entrenched Russians on the coast; so, when his flagship put in an appearance in the roadstead, I lost no time in paying a visit to the admiral before my departure for Constantinople.

On arriving on board I was most cordially received by one of his officers, who spoke excellent English, and who preceded me to the great commander's cabin.

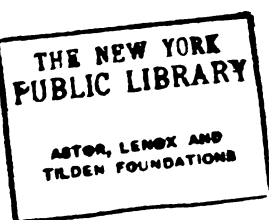
"Come in," said a stentorian voice, and the next moment I was inside his unpretentious sanctum. "How are you, Montagu? Well, I hope. Eh? Take the *Times*. Comparatively recent; at least, only two months' old. Rather a treat, I should say, after being up country. Read it, and don't say a word till I've finished these despatches."

The sight of so late an edition of an English newspaper was strangely fascinating, and for ten minutes or more the only sound to be heard was that of Hobart's pen running riot over much official-looking paper. Having closed and sealed his correspondence, he rose, and shaking me cordially by the hand said, in the bluff, honest manner so peculiar to him—

"Going to have tea. Have some, too? Took two Russian



HOBART PAŞA.



prisoners the other day near Batoum—two cows; so I've got new milk to offer you. A rare luxury on board ship, I can tell you."

With this he led the way into a sort of ante-cabin, where I did full justice to the Admiral's hospitality. Afterwards, when on deck he called my attention to a number of small sacks containing a red powder.

"What do you think that is, eh?"

I mildly suggested it might be a preparation of dynamite.

"Dynamite! Oh, no; more unpleasant than dangerous. No; it's cayenne pepper—a reminiscence of my boyhood. I remember using it once in a ball-room with signal effect. A ludicrously touching scene, I can assure you. In frantic excitement, and



torrents of tears, the guests rushed from the room; it was too hot for 'em. Hence *this* idea; and I find that by mixing a fair proportion of it with powder, I can clear a redoubt in a moment. I've been doing it with marked effect on the Russian earthworks. When there is little wind they become untenable for hours."

A few days later we found ourselves on board an Austrian-Lloyd's steamer on our way to Constantinople. The passage was a very rough one, which was made more memorable by an

attempt at mutiny on the part of a large number of deserters (about 800), who were being taken under small and useless escort to the capital. One of their number—an excellent swimmer—suddenly leapt overboard at Sinope, and succeeded in getting to shore. This seemed a signal for general revolt, passengers and crew having to stand to their arms pretty promptly, or numbers might have told against us. It was a strange experience, and by no means a pleasant one. Our ultimate safety was, I think, really due to the prompt action of the second officer, who, in less than no-time, drew a rope in such a way across the deck as to confine the infuriated mob to the bows of the vessel ; and then he himself stood calmly in front of it with a huge revolver, assuring them, as he waited for developments, that the first man who attempted to pass or break that rope would be shot. Naturally, there was no striving to be first ; each immediately affording his neighbour ample opportunity for taking the field, trembling lest he himself should by some accident be swayed beyond the prescribed limits, the muzzle of that revolver travelling backward and forward in front of those now cowed prisoners.

But that journey was memorable for something far more momentous than this since at one time we lost our way for many hours in a dense fog, which not only compelled us to travel at the most melancholy rate of quarter-speed, but, to add to the painful predicament, a panic was created when it became generally known that the coast-line of the Black Sea was literally intersected by torpedoes, so that at any moment we might be blown into space. Fire is a new element to the sailor of the mercantile marine, and in this case seemed more calculated to completely demoralize him than all the storms in the world.

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It was a delicious morning when we reached Constantinople ; but its charms were lost on me, since the complaint, erythema, which had so nearly left this chronicle unpublished had again asserted itself, and it was with great difficulty I could crawl from place to place. So, assisted by Williams, who this time secured rooms in a private residence instead of an hotel, I was glad enough to at last look forward to a little rest. The house was kept by an old lady and her daughter, and was delightfully situated in the Kutchuk Magarlie, overlooking the Golden Horn. With a great effort, and much assistance, I managed to get up to my bed-room, where afterwards every kindness and attention was shown me. The Greek doctor who was called in shook his head gravely with

an air of profound professional wisdom as—much to my dismay—he told me (his hands in his pockets the while chinking in sweet imagery the coin his prodigiously long bill would bring him in) that I must remain several months, at least, where I was.

The second day after my arrival in Pera it was the scene of great excitement, the inmates of the house rushing into my room in the wildest state of terror. The *softas* (students) had threatened to massacre the Christian population. As day merged into night, the anxiety and tension became terrible. In justice to the Turkish Government, it may be said that patrols were sent round to discover, if possible, the scheme by which simultaneous



attacks were to be made, but this did little to reassure the terror-stricken Christians, amongst whom, being Greeks, were my landlady, Madame Diamantes, and her daughter. Houses were closed and barricaded as if in anticipation of a siege, the streets being left in sole possession of the dogs, who, unmoved by religious, political, or any other agitation, slept in peace.

In my room were to be found a curious medley—for it seemed they had a sort of vague idea that an English war-correspondent (even though he had not a leg to stand upon) was a rock to which to cling. Had not the circumstances been so terribly serious, the scene would have been ludicrous, as several Greeks residing in

Turkish houses had fled to this one for that security which numbers seemed to afford, and had made my room their rendezvous. All the weapons available, in the shape of revolvers, &c., were laid on my table ready for an emergency, while coming Christian martyrs, in some cases of most unpoetic aspect, watched from the windows the Turkish troops defiling below.

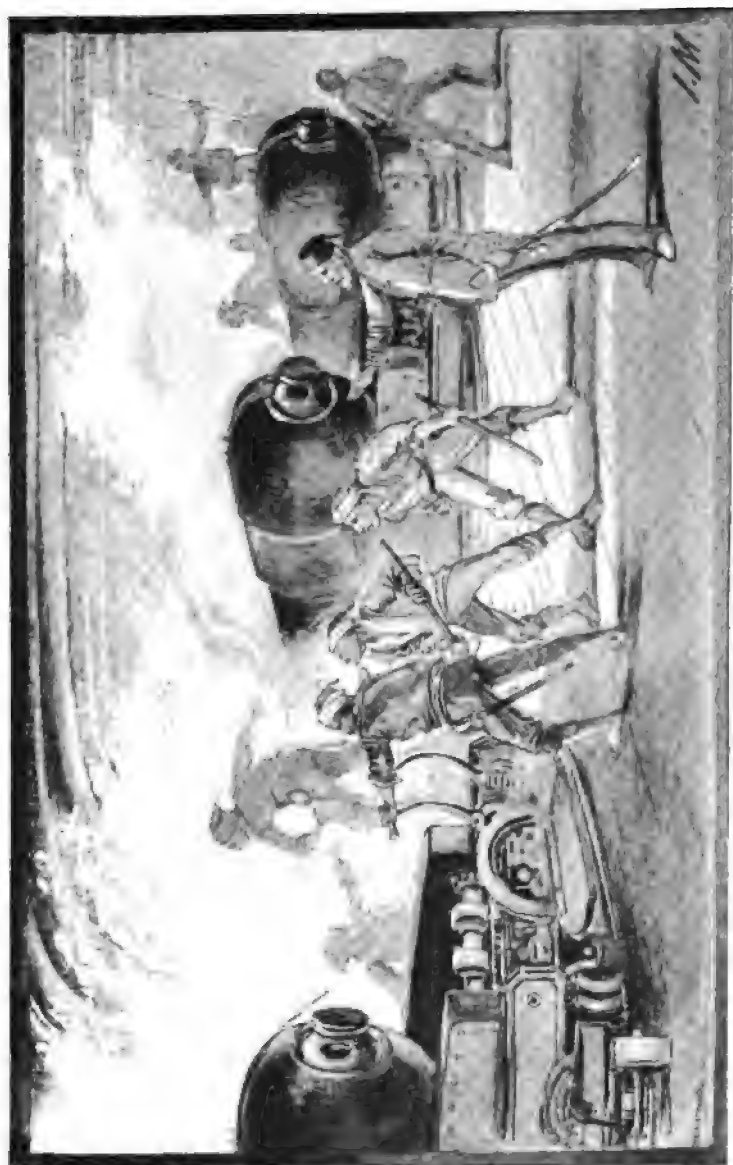
All night were these poor creatures alternately watching and praying, till, at daybreak, the loud booming of cannon was heard; and although it was illogical to suppose that the *softas* had suddenly possessed themselves of the artillery, it was impossible to reason with or reassure those terrorized people, who naturally could only suppose that the massacre had commenced, and the scenes of anguish around me were in some cases frightful. Several hours having passed, however, and nothing more having happened, they became at last somewhat toned down, and sufficiently quieted to inquire into what was really going on outside, when, after several reports of fearful bloodshed, it was ascertained beyond doubt that it was the Sultan's birthday, and the booming we heard was the salute of 101 guns to announce its dawning, those anticipated horrors coming to nothing after all.

Having had a fair share of the regrets and separations which flesh is heir to, I remember few partings which have affected me more than when, on the steamer which was to take me to Brindisi, I separated from my faithful dragoman Williams. He had been to me a jewel beyond price, a man of the highest principles and most admirable resources, combining the courage of a lion with the gentleness of a lamb, and so completely devoted to myself and my interests that, as he went down the ship's ladder into the caique which awaited him below, he broke down altogether, and (tell it not in Gath, reader), if the truth must be known, so did I.

He was one of nature's gentlemen, whose services had been far beyond the reach of ordinary recompense. A happy thought struck me as the caiquegees put their paddles into motion. My watch, with my initials on it, would be in some way a souvenir of our friendship; so in a twinkling I dropped it overboard, almost on his devoted head. He caught it, however, and glad was I to leave a memento behind me with such a faithful friend and ally.

* * * *

After a rapid run from Constantinople to Brindisi, and thence overland *via* Turin and Paris to London, I may briefly say that I was still so knocked up by the combined effects of constant chills, starvation, bad water, and the many other privations of the



'TWEEN DECKS ON A TURKISH IRONCLAD.

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campaign in Asia Minor, that on my arrival at Charing Cross I had to go direct to my cottage at Hampstead, where, so changed was I, that actually my old housekeeper failed to recognise me. Ill, haggard, and unshaven, a beard of large growth having nearly taken possession of my visage, her failing to know me was not altogether astonishing. After about twenty-four hours' rest at home, however, I managed to get down to the *Illustrated London News* office, to report myself and receive my further instructions, which were—to start *that evening* for Plevna.

It was then about three o'clock, and although it was supposed I was too knocked up, too utterly unequal to this new effort, still a certain professional desire seized me to be the one war artist who had done the *double event*—the two campaigns, Europe and Asia Minor—and I was determined, come what might, to go; and so, sending a telegram, of which the following is a copy and which will give some idea of the rapidly shifting scenes of a correspondent's life at such stirring times, I prepared to start.

Handed in Strand, &c., &c.

I join the Russians to-night; meet me at Bertolini's at five thirty; bring black portmanteau, your rug, cards, passport, revolver, great coat, flask, and pipe.

Being joined by these *old friends* in due course, and arranging a hasty equipment of necessaries in the immediate neighbourhood of Charing Cross, I left by the eight o'clock continental train for the seat of war. It was a halting progress, however; for I broke down completely when I got to Paris, and had again to lay up for some hours when I arrived in Vienna—where, by the way, I found my heavier luggage, which, when I ran the gauntlet of the Russians at Giurgevo in the beginning of the campaign, I had left behind me in that capital. After several hours rest I found myself just able to make the last lap, which brought me through my old Hungarian and Servian hunting grounds once more to Bucharest.

Now, finding myself in a regularly Russified city, my first object was to put myself into communication with Prince Gortschakoff, that under the ægis of that great *diplomate* I might get to the front with as little delay as possible. I was most courteously received, specially by his Excellency's secretary, Baron Jomini; but, to my consternation, the reception ended in pleasant-ries only. I was assured that it was utterly impossible to get a permit to join the army of occupation in Bulgaria; and as if to add to the difficulties of my dilemma, I was told at the same time that, owing to the anticipation in several cases by correspondents

of *intended* Russian movements, representatives of the press of all nationalities had been ordered to the rear, so that *I* must consider *myself* to all intents and purposes as being limited in my field of action to Bucharest itself. I kept my own counsel, and although these arrangements were, no doubt, most necessary from a diplomatic point of view, I privately made up my mind that this should not affect *my* movements if, humanly speaking, I could prevent it. This place, for the second time in the same campaign, having curiously enough become the point I had to force.

With Coningsby, the *Times* correspondent, I talked the matter over that evening, he of course being in exactly the same predicament; the result of our council of war was that we decided to get through to the front, if possible, disguised as *camp-followers*. The best that could happen to us would be—that we should succeed; the worst—that we should (having at least done our best) be sent to St. Petersburg till the end of the war. With this point in view we were not long in purchasing a waggon of large dimensions, and stocking it with every imaginable kind of provender, from tinned salmon to tallow candles. This done, we proceeded to rig *ourselves* up in, I may say, such perfect disguise that we scarcely recognized one another; we secured servants, including a driver, and thus we started—as *camp-followers*—for Plevna. Sending on the waggon in advance, to await us at Zimnitza, we went off by rail to Giurgevo on the Danube, here again another obstacle cropped up, the train being brought to a standstill some distance outside that place owing to the station at that time being under the shell fire of the Turks from the forts of Rustchuk. They had opened fire on the train which had arrived previous to ours—its smoke serving as a point on which to sight—the Osmanlis had thus fired from those batteries opposite, of which I had a peculiarly sensitive memory in connection with my previous crossing.

Now in this first train, on their way to Plevna, were Colonel Brackenbury and, I think, Sir Henry Havelock. I had met the latter just before leaving Bucharest, and I believe he told me they were going together. Be this as it may, I afterwards heard they left their portmanteaus in charge of their respective dragomen, and went in quest of refreshments a little way into the town; those dragomen in turn (hungry as their masters) gave the temporary care of the baggage to a couple of soldiers off duty, who, for a few kopecks were glad to represent them, and it was during their absence a shell burst through the roof of the

railway station, and exploding on the exact spot where these unhappy guards stood, not only killed them both simultaneously, but smashed the portmanteaus and their contents to pieces—but more on this subject anon.

Coningsby and myself, arriving late—slept one night in Giurgevo—securing for an early hour the next morning a three-horse drosky to take us to Zimnitza. It was curious to note the siege panic which had now for some time taken possession of the town. I visited several familiar spots, notably that little water-side inn, where the crossing of the Danube was discussed by the Russian



spy and myself; it was now a heap of splintered, shattered ruins. Giurgevo had evidently suffered severely, several shells having also done their work most strangely; for instance, one had entered the roof of a house almost at an angle of 45° to its base, and after having traversed the floor and ceiling of every room in succession had finished its mad career in the garden, where it had harmlessly exploded, the detonator having been in some way so faulty, that although the whole household were scared, no harm was done to any one. Indeed, this had happened in the very bed-room in which I spent that night in Giurgevo, a shell having previously come through the roof of that room and out of an open

window into a yard below, where it did much havoc amongst the pigs and poultry. I was amusingly assured by the old self-constituted landlady, who for protection had taken up her quarters in the wine cellar (not half a bad billet, by the way), that *mine* was the safest room in the house, as it was highly improbable another shell would penetrate the same spot; and though the hole in the roof made it rather draughty, there was little danger of my being disturbed. I put her down as the most admirable lodging-letter but, at the same time, the most utterly illogical old creature I'd ever met. She had, in the palmy days of this hotel, been

one of its cooks, the master of which had now fled for dear life, while she, in conjunction with her son, an oily, scared-looking youth who did duty as waiter, was running the establishment on her own account, and supplying, at exorbitant prices, the few Russian officers, correspondents, and others who found it necessary to stop there in passing.

Loquacity itself, she again assured me, in the same queer, illogical way, that had not that idiot of a son of hers left the window open in my room the hole would have never been made in the roof. It is quite impossible to argue against the upside-



down notions of some people. From an idiotic point of view, I think that galvanized impulse of a son of hers had not his equal in all Roumania; a tale of terror was told by every line in his prematurely furrowed face. He started at shadows, and trembled like an aspen at any sound much above a whisper; his fear was positively appalling. At dinner it was absolutely dreadful; he put one in a state of spasmodic jerks, which, if nothing worse, were calculated to completely upset one's digestion. When he brought in the soup that night, it was at a most unfortunate moment. The wind happened to blow down a ladder which was propped against the house in the yard outside; at the same instant, the two soup plates went in diametrically opposite directions,

the waiter forming a spreadeagle in the centre. Poor wretch! he was in a chronic state of shells, and fell flat at the slightest suspicion of a sudden noise. War had, indeed, so upset him that even the maternal influence failed to persuade him to further supply us with dinner, so we finished by going to the top of those cellar stairs and fetching what we could for ourselves.

* * * *

It was a delightfully clear, crisp autumn morning. Jingle, jingle, jingle went the drosky bells, as three very fresh horses clattered over the stones of the stable-yard round to the front door of that half-demolished hotel, where we awaited them.

Our portmanteaus being carefully packed behind our seats, we jumped in. If it had not been for the *débris* of war, by which we were surrounded on every side in that be-shelled little place, one might have felt at peace with the world as we lit our matutinal cigars and rattled along its main street, past the shattered railway-station out into the open, on our way to Zimnitza.

Now "it's not so much the disguise," a clever London detective once said, "as when, where, and how you wear it;" and so we thought, from the moment Baron Jomini assured us we were to consider ourselves virtually prisoners in Bucharest. Thus we left that place, unobserved, as camp-followers. The same individuals, however, in a three-horse drosky, would have invited dangerous criticism, so we now covered our less pretentious costumes with huge fur-lined great-coats and muffin-shaped fur caps, thus becoming part and parcel of the great tide of fighting humanity ever ebbing and flowing between the Roumanian side of the Danube and Plevna.

That which was our best protection in one place would in another have been the very means of our discovery; thus we now appeared in the *rôle* of officers going to the front, while elsewhere the homely garb of camp-follower might better answer our purpose in getting through the many intermediate barriers between us and that cordon of steel now daily contracting on devoted Plevna; but I anticipate.

We had not long cleared the town, when it became manifest that we had attracted more attention from the gunners at the Turkish outworks at Rustchuk than we either desired or deserved. Our route for some distance skirted the river's bank, where we were in full view of those forts which, it will be remembered, menaced me once before in the earlier stages of this narrative, when in an open boat I found myself approaching that Moslem town.

Wondering, like Mr. Micawber, what would turn up, our cogitations were brought to an alarming standstill by an ominously sullen roar from across the water, immediately followed by the deafening bursting of a shell in some underwood a little to our rear. We had evidently been spotted and, without some miraculous intervention, should be made mincemeat of when their sighting became more accurate. Another shell followed, wider, however, of the mark than the first, which, though it served to increase the terror of our now half-frantic horses, gave us renewed confidence.

Plunging and rearing as they did, those startled steeds gave the Turks the opportunity they wanted, for in less time than it takes to describe it, the uncanny screech of yet another shell terminated in a third crash, so close that even now I shudder when I think of it. All for a moment seemed chaotic confusion, and then——



Clippings from the Foreign Press.

A PLAN FOR THE INVASION OF CANADA.—Under the title of “The Canadian Question—A Military Glance at it,” the *United Service* of Philadelphia supplies a scheme for the easy subjugation of our Transatlantic dependency which ought to be studied by every British officer. “*Terræ Filius*” (the writer is not more specific) informs us that the provinces of Quebec and Ontario cannot prosper while they are separated from the sea by a wedge of foreign territory like the State of Maine. So anxious are all good Americans for the welfare of the Dominion that they feel they must eventually come to the rescue and receive the provinces into their fold. As to whether they are to be driven inside by force of arms, or enticed thither by the baits of a commercial union, opinions vary. But “somehow” the provinces of Quebec, Ontario, and Manitoba, at least, *must* be got to come in. The climate, even in winter, is favourable to military operations, as in Russia and other cold countries: at Quebec snow falls in November, and, lying till April, permits the use of sledges as a means of transport; the land is so fertile that, as proved by statistics, “an invading force would have little difficulty in supporting itself by requisition”; the railway system of Canada is in excellent order and very extensive, and it is largely supplemented by water transport. Add to this that, though “Ontario is essentially Britannic,” Quebec is French to the backbone, and that even in Britannic Ontario there are, out of a population of 2 million, 680,000 Irish to neutralise 586,000 English (leaving the Scotch, who may be Gladstonians, out of the question), and we perceive at once that the time is fast approaching when a philanthropic Republic ought to intervene. Wherefore delay? “*Terræ Filius*” is of opinion that the United States forces should stand on the defensive on the New York and Vermont frontier, because of the strong positions offered by the tributaries of the St. Lawrence to the Canadians; but care must be taken, lest the enemy, seizing time by the forelock, issue forth from Quebec, dash across the State of Maine, and, capturing some port on the Atlantic

seaboard, convert it into a base of operations for the reception of the British fleet. Offensively, the aggressor would operate with two armies: with the one he would cross the St. Lawrence near Prescott, and occupy the triangle contained by that river, the Ottawa and the Lake Rideau Canal; a general action would be fought immediately for the possession of the capital of the Dominion, after which the victorious invader would occupy a sort of entrenched camp between the two rivers which, cutting the Dominion in half, would deprive the two chief provinces of all means of co-operation. At the same time, a second army would assail the "Garden of Canada," i.e. the rich and prosperous peninsula between Lakes Huron and Erie, holding it as a "material guarantee" till the conclusion of peace, and till the provinces consented to "come in." The American forces might converge on Toronto from Niagara, Detroit, and Sarnia, so that, unless the "Garden of Canada" were at the outset crammed with troops like a second Poland, its occupation would not probably turn out to be a very serious undertaking. There are no fortifications in Canada except at Halifax and Victoria, not a single gun foundry, and only one manufactory of ammunition; the regulars consist of under one thousand men, and the active militia of 37,000. The "reserve militia," or *levée en masse* of the able-bodied male population, is on paper a million strong, but as it is neither "organized, drilled, or armed," it can hardly reckon for much. Thus it cannot be said that the writer draws an absurd conclusion when he winds up by saying that the "conquest of Ontario and Quebec offers no serious difficulties," and that with "two armies thrown promptly into Ontario, one with Ottawa and the other with Toronto as objectives, the war would be successful, short, and in every way decisive." But are these armies in existence?

THE FRENCH REVOLUTION AND THE ART OF WAR.—The *Jahrbücher für die Deutsche Armee und Marine* of September leads off with an able treatise on this subject. Premising that a revolution, however beneficial its results, must necessarily be a calamity to a nation, and especially to its army, by undermining respect for authority, which is the essence of the military spirit, the writer briefly traces the progress of the art of war from the time of Frederick the Great down to our own days. The eighteenth century was the era of "cabinet wars" in which the mass of the nation took no part, more often than not looking on with indifference. Mercenaries were chiefly in vogue, whence the employment of a close formation in order that so unreliable a class of

troops might be closely observed. Wars were protracted because the contending States husbanded their resources, and the object in view was more to preserve their own armies intact than to cripple the power of the enemy; commanders relied upon stationary magazines for the support of their armies, and their manœuvring power was thereby limited, fettered, and tied. Then came the Revolution of 1789, which found the French army so demoralized and ill-disciplined that it sided with the revolt instead of suppressing it. The coalition against France which followed the execution of Louis gave rise to the principle of universal liability to military service, and Carnot raised 400,000 men in 1793 for the defence of the frontier. But these raw conscripts were unable to face the veterans of the allies, and it was resolved to supply lack of discipline by overwhelming numbers; hence the close columns of attack covered by skirmishers on which the Republican generals and Napoleon relied for success. But, apart from tactical innovations, a profounder change was introduced by the movement initiated by Carnot. The struggle was no longer, as in the previous century, to occupy a slice of territory, capture a fortress, or devastate a province. It was to exterminate the hostile army and compass the seizure of the capital which became the commander's objective in the time of Napoleon, who no longer allowed his movements to be hampered by the time-honoured custom of forming magazines along the line of march traversed by his columns. We are shown how the French Emperor exhausted the impetus supplied by universal service and republican enthusiasm through the selfish vehemence of his ambition. The incorporation of foreigners in his armies undermined the spirit of nationality, as well as protracted residence abroad, where the soldiery, from being champions of liberty, too often degenerated into rapacious Prætorians. He also tampered with the idea of universal liability by admitting substitutes for conscripts belonging to the richer classes, and to this abuse the writer is inclined to attribute in a great measure the calamities which overtook the French in 1870. We ourselves, at the present moment, witness its injurious effects on the Belgian army. The dispersed order in tactics and the "Nation in Arms" have thus been the principal fruits, from a military point of view, of the French Revolution; but the nations have ever been slow to recognize the value and profit by the experiences gained in the past. In fact, Prussia was the only State in Europe which did so, and her foes in 1866 and 1870 encountered her with antiquated tactics and armies whose organization was effete. The Prussian

nation, on the other hand, had been educated to a military career. It had profited by the lessons of the Revolution, and in these two campaigns her strategy struck as boldly out as ever Napoleon's did. The writer does not attribute that leader's failings, towards the close of his career, to any diminution of intellectual vigour; but to the fact that he was at the head of a "scratch" army possessing no moral bond of union, while the means at Prussia's disposal in recent wars corresponded to the grandeur and comprehensiveness of her strategic aims.

THE LAST OF THE RHINE ARMY.—Under this title the *Revue Générale de l'Etat Major* publishes the reminiscences of an eye-witness who relates his personal experiences during the progress of the catastrophe which overtook the French armies around Metz in October 1870. The defence of their country was in the first instance entrusted to the Army of the Rhine and that of Châlons. The latter had but a brief existence. Assembled in the middle of August, it disappeared on the field of Sedan on the 1st September for ever. The former had a longer life, but the agonies of its dissolution were not less severe. We live rapidly now-a-days, sagely remarks the writer. Three centuries ago what a length of time it would have taken to reconstruct the Paris of 1871, such as the double siege and bombardment together with the outrages of the Commune had left it. But to-day the prodigies of the Exhibition have effaced the memories of those days of horror. The moral impressions, however, created by astounding events, are effaced even more quickly than the ravages inflicted by the hands of the enemy. Owing to the rapidity of modern means of communication these impressions affect the whole country simultaneously as by an electric shock, and the effect is as violent and ephemeral. It may thus serve a good purpose to recall them to memory. During the month of September the spirit of the blockaded army was good. There was no lack of provisions, and no succinct account of the result of recent battles had been made public; everyone formed his opinion from the isolated encounters in which he had taken part, and a notion generally prevailed that on the whole the French had not come badly out of the conflict. At this crisis a sortie on a large scale might have been undertaken with prospect of success. But in October the army, short of provisions and destitute of cavalry and artillery owing to the emaciated state of their horses, was already devoted to destruction. On the 6th September horse-flesh was issued instead of beef, and on the 21st October a final distribution of bread, a quarter ration per man, was made. The

horse-flesh was relished at first, but, as the animals became emaciated from lack of food, it became insipid and worthless. The condition to which these poor quadrupeds were reduced presented a harrowing spectacle. "The poor starving brutes gnawed at everything they came across, the trellises of vines, the wheels of carts, and one after the other took their departure for the shambles, the last of them like skeletons, without mane and tail, and so feeble as scarcely to be able to keep their feet." Shut off as they were from the outside world the army in Metz was the victim of the wildest rumours, and Bazaine at length announced that negotiations were pending for the release of the French army "to restore order in the South," while terms of peace were arranged with the Empress Eugénie as regent. On the 26th October, however, this mirage was dissipated by the public intimation that the scheme had fallen through, and nothing remained for the French army but capitulation. When that "brutal fact" had to be confronted the suspicions against Bazaine, which had long been harboured by his subordinates, acquired fresh vigour:—

The inactivity of the Guard and Reserve of Artillery left standing uselessly on Mt. St. Quentin during the whole of the battle of the 18th, the combat at Servigny, which might have commenced at noon, and did not till half-past four, as if to allow the Prussians time to concentrate against our attack; the Marshal staying in his quarters for two whole months without issuing forth, as if to conceal himself, and not even paying a visit to the ambulances; and the distribution of wheat instead of oats, made to the horses at the beginning of September. We would have carried our heads high, if we could have done so, like the soldiers of Massena after the siege of Genoa, or those of Davoust after that of Hamburg. But we felt that we had not really acted like them, and that we had permitted the alien to occupy Metz, that old city of Lorraine, so French at heart, and hitherto reputed impregnable.

A graphic narrative follows of the actual surrender when, in the midst of weather which seemed to ally itself with circumstances to make the French soldier's heart sink within him, the rank and file were handed over by their officers to the German conquerors.

BARON PHILIPPOVICH. — The *Panorama* (*Světózor*) of Prague informs us of the circumstances attending the recent death from apoplexy of Baron Philippovich, commanding the 8th corps of the Austrian army, which territorially belongs to Bohemia. He was one of the best officers in the Austrian service, and despite his age, 72 years, was probably destined for high command in the event of the outbreak of war on a large scale. The last military operation of any importance undertaken by the Austrian Government, viz. the occupation of Bosnia and Herzegovina in 1878, was conducted to a successful termination under his supervision. Afterwards, with the exception of two years during which he cr

1732 *JOTTINGS FROM THE FOREIGN PRESS.*

manded at Vienna, he was constantly resident at Prague, with the interests of which city he had identified himself so completely that he was presented with the freedom of the municipality. The late "Feldzeugmeister," for such was the rank he held in the



BARON PHILIPPOVICH.

Austrian army, though a severe disciplinarian, was highly popular among the troops, for whose material welfare and happiness he showed a never-failing solicitude. He was found dead in his bed by his servant, who entered his chamber in order to wake him, on

the 6th August last, at about 4 A.M., his family being at the time absent at the seaside. He was buried at Prague amid demonstrations of universal sorrow on the part of the inhabitants. We are able to supply the reader with a portrait of this excellent officer.

GENERAL DRAGOMIROFF'S MAXIMS.—Of late the Continental military press has been greatly occupied with the military theories which General Dragomiroff has been giving to the world; and the *Spectateur Militaire* has lately devoted two articles to the subject. The General, who is Commandant of the Staff Academy at St. Petersburg, is a most distinguished officer, and likely to play a prominent rôle in any great European contest which the immediate future may have in store. In company with the late General Skobeleff, he effected the passage of the Danube at Sistova in 1877. Having admitted this much, we cannot say that we find anything very new or useful in his written opinions, which appear to be a *réchauffé* from those of Napoleon, Clausewitz, Bugeaud, and more especially Suvóroff. Still, we doubt not that he is well aware of the manner of man he is addressing in the person of the Russian soldier; and the utterances of even Suvóroff seem extravagant to the Western European, though they are sanctified by the memory of great exploits. To begin with, let us consider the first maxim cited by our contemporary the *Spectateur Militaire*. “*The soldier is the warrior of Christ, and it is in this light that he should consider himself, and behave accordingly.*” Now, among soldiers of the West, who are in a more advanced stage of civilization, or, maybe, corruption, this maxim would simply excite derision. The unsophisticated *moujik* may be taught to believe that he is a soldier of the Cross when, enrolled among the armed millions of Russia, he marches on Constantinople, trampling on the liberties of Bulgaria—shall we say?—*en route*; but it would be difficult to persuade the Frenchman in Algiers, the British soldier in Egypt, or when engaged in combating Boers or Zulus, that he is entrusted with a similar mission. “*Only those who are afraid get beaten.*” Here is another outburst in the “high filuting” style which will not bear analysis, though it may pass muster with the unreflecting denizens of the steppe. “Were the French nobility at Crecy and Poitiers afraid?” asks our contemporary. “Were the Imperial Guard at Waterloo, the Russian garrison of the Malakhoff; the Zouaves, Turcos, and Cuirassiers, at Fröschwiller the victims of fear?” Confronted with this species of exaggeration, let us call to mind the words of Napoleon

"Les premières qualités du soldat sont la constance et la discipline ; la valeur n'est que la seconde." How completely the General has made himself the exponent of the antiquated views of Suvóroff, is proved by his ardent recommendation of "bayonet tactics," the employment of the "shock system," a reliance on which contributed to ruin Benedek in 1866. God forbid that we should disparage the *arme blanche*, but when we find a scientific and distinguished officer recommending "shock" instead of "fire tactics" in the face of recent experience, we can only hope that, were we forced to take the field, our troops should find him at the head of their adversaries. Here, again, is a dithyrambic outburst copied direct from Suvóroff: "*Obedience, Drill, Discipline, Cleanliness, Smartness, Swagger, Boldness, Bravery, Victory, Glory, Glory, Glory!*" But, after all, the book is not meant for us, but for Russians. Apart from the General and his "theories," these articles reveal a goodly number of "things not generally known." The writer, for instance, asserts that the Germans employ military police to "blow out the brains" of fugitives on their own account, or acting on the pretext of carrying wounded to the rear. He cites, as his authority, General Voigt-Rhetz. This is no malicious reflection on the courage of the foe, for the writer recommends similar arrangements for the French army, and instances a case which came under his personal cognizance, in which his countrymen were worsted in a skirmish with the Prussians through the former quitting the ranks for the ostensible purpose of carrying the wounded to the rear.

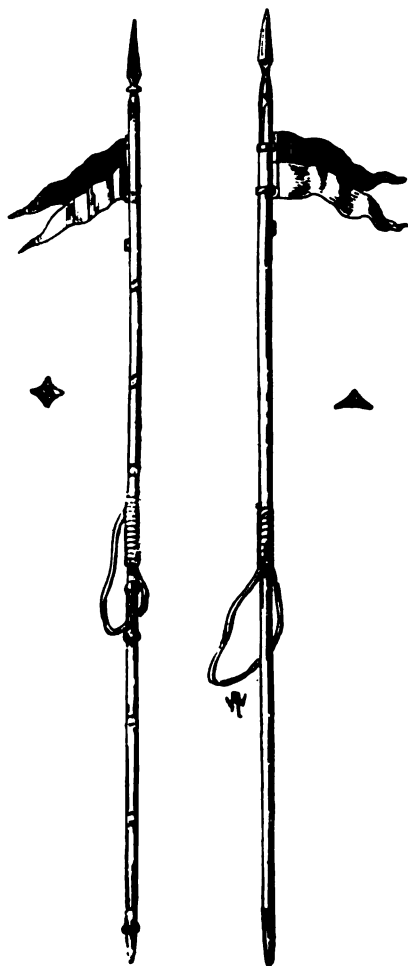
THE LATE KING JOHN OF ABYSSINIA.—A good summary of events in Abyssinia subsequent to the evacuation of the country by the British troops, is supplied by *Work (Trude)*, a St. Petersburg magazine, in its September issue. The influence of Christianity, which was introduced into Abyssinia about A.D. 300, has not been attended there by its usually beneficent results, for the kingdom has been an arena of intestine strife through the quarrels of its rulers ever since. Their exorbitant vanity and arrogance, as in the case of Theodore, has constantly brought them to grief; nor was the late Negus, John II., exempt from this weakness. Reckless cruelty added the natural accompaniment of vicious propensity. Theodore, it is stated, when excommunicated by the Patriarch, blew the old man's brains out with the exclamation, "Bless me, holy father!" The late John II., descended like all the Negus from Solomon, was known as Kassai, Prince of Tigre, at the time of the British invasion, and was furnished by Lord Napier with arms and ammuni-

tion, which, after our departure. enabled him to seize the reins of power. But after defeating his rivals, he was called upon to encounter the armies of Egypt, which, in fulfilment of the aggressive designs of Ismail, the late Khedive, had crossed the Abyssinian frontier. On the 18th November 1875 and the 7th March 1876 the invaders were exterminated, and, after a prolonged interval of futile negotiation, John, in 1879, could regard Abyssinia as united under his sceptre. In the same year, our modern paladin Gordon visited Abyssinia as envoy from the Egyptian Government, and this writer affirms that with all his Egyptian sympathies he returned to Cairo a confirmed adherent of the Abyssinian monarch and his *orthodox* people. Envoys from other European States followed in the footsteps of Gordon, but only one nation succeeded in laying a firm hold on the East African sea-board. Italy, having long beforehand spied out the land through travellers on their own account, seized the occasion afforded by the murder of one of them, Bianchi, in 1885, to occupy Massowah. This led to the successful attack on the Italian troops at Saati, the disembarkation of an army corps to avenge the disaster, and the abortive operations around Massowah in the winter of 1887-88. On his return from the neighbourhood of Massowah in April 1888, the Negus turned his attention to and directed his forces against the followers of the Mahdi, and on the 8th March a decisive action was fought at Metemmeh with the Dervish army. At first the Abyssinians were victorious, but, dispersing in consequence, were attacked and exterminated next day by their enemies, who had rallied during the interval. The Negus was wounded, and died from the injuries he received. On the news becoming ascertained at Rome, preparations were made to take full advantage of the accident. On the 25th May the Italian forces advanced, and have since occupied the mountain passes which command the interior of Abyssinia. In a word, the writer affirms that all necessary preparations are being made for an Italian colonization of that interesting and fruitful region, and the latest telegrams confirm this opinion.

THE FRENCH LANCE.—The *Illustration* furnishes details regarding the new lance issued on trial to the French dragoons. The War Minister has recently purchased 10,000 bamboos, which are to be substituted for the old style of shaft made of ash. A peculiarity in the new weapon is that its flags have been cut much smaller than before, in order to present less surface for the wind to act upon; another is that the head is quadrangular in section, instead of three-cornered like a bayonet. As the *Illustration* justly argues, the

chief advantage secured by the lance as an offensive weapon is its length: why then make the French lance shorter than that

wielded by the German trooper, and in the ratio of 2·70 to 3·30 metres? We borrow from our contemporary the accompanying sketch of the two weapons, the old French lance and the new.



NEW.

OLD.

The *Revista Militaire Italiana* for September contains a long article on "Modern Gymnastics." The remarkable revival of gymnastics in recent years justifies, in the writer's opinion, a brief review of the methods practised by the most civilized nations of Europe. Beginning with *la forte Albion*, "whose athletic games and matches carry one back in thought to the glorious times of Sparta and Olympia," our panegyrist surveys the various systems in vogue, observing that in England the same unfettered freedom of choice prevails which is characteristic of our political institutions. It is a pity, however, that he has not learnt to spell our games correctly. Perhaps this would be expecting too much of the intelligent foreigner.

—The *Mittheilungen über Gegenstände des Artillerie und Genie*

Wesens welcomes the appearance of Captain Gall's work on MODERN TACTICS, the more so that treatises of this nature come so rarely from an English pen. It is admirably adapted for the purpose intended, though perhaps, says the critic, the chapters might have been better arranged. Mounted infantry, he adds, may be suitable for the minor wars in which our troops are so frequently involved, but offer little interest for the Continental armies. In the same way, cyclists may supply the place of cavalry with

our Volunteer and Militia forces in a country like Great Britain, which is covered with a dense network of roads and hedges.—The *Revue Militaire de l'Etranger* continues its long account of the British army and its innumerable anomalies. We are an anomalous nation, in point of fact; and our experiences since the abolition of the Purchase System have instructed us that anomalies sometimes work well in practice.—We learn from the *Revista Armatei* that the manœuvres in Roumania are being conducted this autumn on a somewhat extensive scale; all the four army corps are to be out, and they were to come to an end on the 15th of October. The anniversary of the capture of the Grivitza redoubt at Plevna on the 30th of August 1877 was solemnized at the Monastery of Sinai in the presence of King Charles and the heir-apparent to the throne. The battalion in garrison was then reviewed and feasted by His Majesty, who afterwards gave a *déjeuner* at the Royal Castle, where the usual patriotic toasts were proposed by him, and loyally responded to by General Manu, the Minister of War.—The September number of *Young Australia* contains a variety of interesting matter relating to the subject of Imperial Federation, which will repay perusal.



Volunteer Notes.



ALTHOUGH up to the time of writing no very startling incident has occurred to render the month of October 1889 a memorable one from a Volunteer's point of view, there has been no lack of topics for general discussion, or of minor movements some of which may one day develop into substantial institutions. In the latter class we are not quite sure whether or not to include what at first sight seems an important and solid proposal, the foundation, namely, as recently projected, of a Volunteer Force Institute for London and the counties of Surrey, Kent, Hertfordshire, Berkshire, Oxford, Bucks, and Sussex. The object of this Institute, which is to be under the patronage of H.R.H. the Commander-in-Chief, is to enable the commanding officers of the corps concerned to meet for the discussion of service questions, the meetings being held under the presidency of the General in charge of the Home District, or of some other specially deputed officer. In order that the proceedings may not infringe military discipline, the president is to have the power of stopping any discussion, and no report of the proceedings is to be published without his sanction. Popular as the idea seems to be, and influential as is the patronage and support extended to it, we cannot see that it is conceived wholly in the interests of Volunteer progress. The results which are to be attained are, after all, very small in comparison with the amount of fuss and friction by which their attainment will be arrived at, and the interposition of the power of veto to be exercised by the president is, under the circumstances, surely quite unnecessary. To take the latter objection first, it is a wrong principle to suppose that such highly responsible individuals as commanding officers of Volunteers would deliberately meet to discuss service questions, with a view to the subsequent publication of a report, and would

so order their discussion as to contravene the perfectly understood laws of military discipline. To place anyone as a kind of Speaker in authority over what need not be more than a useful and pleasant interchange of ideas on subjects naturally interesting to all parties present is equivalent to an insinuation that commanding officers of Volunteers in conclave cannot be trusted to keep within reasonable limits, presumably even in the discussion of their own business.

As to the broad question whether such Institutes are of any solid use, we can only give it as our individual opinion that they are not, and, unless in very exceptional circumstances, are not likely to be. Local organizations formed for the discussion of national questions may be successful when politics pure and simple are concerned, but in connection with a movement like Volunteering, as to which certainly one-half of the interested parties have opinions more or less different from those stoutly held by the other half, they are a mistake. An analogy, to a certain extent, exists in the case of a militia organization for the county of Lancashire which is known as the Red Rose Club, and which, having a good name for unanimity, is looked upon as a highly influential institution. But what is sauce for the goose is not necessarily sauce for the gander. The latter, as a contemporary novelist observes happily, is the stronger bird, and taking this view in whichever light the reader chooses, we desire to deprecate the application to the Volunteering movement of experiments which have proved successful with an older but in some respects, perhaps, less vigorous organization.

We have spoken somewhat strongly on the subject, as it is one of large importance, and one in connection with which the greatest caution should be observed. For, as we have tried before to indicate in these Notes, there is a very strong feeling on the part of provincial Volunteers that their metropolitan *confrères* are sometimes a little too hasty in inaugurating new departures of this kind. Of course, it is cheerfully recognized that in London the movement has its focus, and this recognition is accentuated by the recent arrangement by which the *raison d'être* of the provincial Volunteers is subordinated to the defence of the metropolis. At the same time, a certain independence of sentiment is surely allowable, and, this being admitted, it does not seem to the ordinary provincial Volunteer altogether satisfactory that there should be a metropolitan gathering in which the Berkshire and Oxford corps should have, so to speak, a vested interest, without any semblance of

outside representation. In other words, if there is to be a Volunteer Institute at all, it should be a national, not a local one; and to be of any practical use should be somewhat more comprehensive than a mere local gathering of commanding officers, under the presidency of a Regular officer with the power of stopping a discussion, can possibly hope to be.

The visit, during the past month, of Mr. Stanhope to Manchester and his remarks to the 2nd Volunteer Battalion of the Manchester Regiment are worthy of especial comment. His emphatic assertion that the War Office now really recognized the position of the Volunteers as part of the defensive forces of the country, and was prepared to assign to them defined and well-understood duties, will have been hailed with the utmost satisfaction by all well-wishers of the movement, coming as it did from a Minister who has already shown such a practical interest in the matter. The success Mr. Stanhope claimed for the introduction of the Brigade principle into the Volunteer system will be cheerfully admitted by all careful and impartial critics, and the additional £20,000 which the War Office is prepared to grant this year in aid of Brigade camps is most striking evidence of the intention of the War Office not to spoil a new ship for a half-pennyworth of tar. Lastly, Mr. Stanhope's important announcement to the effect that in the case of populous centres he was prepared to recommend the Government to make loans in aid of shooting ranges is some of the best news we have heard for a long time. The crowning importance of musketry instruction is being daily borne with increasing force upon Volunteer minds, and the lamentable lack of shooting accommodation in places where in other respects Volunteering is thriving to the utmost possible extent has been a problem of the most difficult order. The timely interposition of Government at this juncture will be of more lasting benefit to the force, and as a natural consequence to the country, than nine-tenths of the miscellaneous but generally trifling concessions made from time to time, apparently more to keep commanding officers in good temper than in the real interests of present efficiency and future progress.

Apropos of the subject of musketry, it is our painful duty to call attention to two sad accidents which have occurred on Volunteer ranges during the past few weeks, and both of which have had a fatal termination. Each of the two victims was a sergeant instructor, and we are sorry to be compelled to add our opinion that neither would have been lost to his corps had the ordinary precautions so imperatively necessary in musketry been

observed. In the first instance, the sergeant instructor, in the course of instructing recruits, was returning from an inspection of the targets, when a rifle held by one of the squad, who was actually in an aiming position at the time, went off, and the contents lodged themselves in the sergeant's breast, inflicting a mortal wound. It is said that the sergeant was not more than five yards from the man at the moment the latter fired, a circumstance almost incredible to anyone with ordinary experience of musketry practice. That a man should be in an aiming position with a loaded rifle in his hand, and with his instructor between him and the targets, would seem to indicate a degree of carelessness really culpable, when one considers the futility of running such risks. In the second case, in some respects perhaps an even more painful one, the sergeant instructor was "marking," and having some doubt as to a particular shot, hoisted the danger signal and forthwith proceeded to the target. The Volunteer at the firing point not seeing the danger-signal—the weather was at the time foggy, and the range 700 yards—fired, his bullet striking the sergeant, who died on the following day. Here was a case in which apparently the simple precaution of having a bugler present was either neglected altogether, or observed in so careless a fashion that it was wholly perfunctory. Adherence to the system laid down of not leaving the butt when marking until the danger-signal has been acknowledged by the bugler at the firing point would have wholly prevented this melancholy accident, which has deprived the service and a corps, in which he was greatly liked and respected, of an excellent non-commissioned officer, and has left a widow and a family of five young children without means of support.

The National Rifle Association is to be congratulated on the continued prosperity which has smiled on its selection of Bisley Common as a site for the New Wimbledon. The work of clearing and marking out has been carried on with exemplary promptitude and completeness, and by the spring it seems likely that very fair progress will have been made towards rendering what was a few months ago a beautiful but somewhat compromising patch of heather-clad moorland a lively replica of the original Camp, the memories associated with which can never wholly die. In the selection of a new Secretary to succeed Captain St. John Mildmay the Council have not gone far afield, but in choosing an officer already well known to them they have, at any rate, succeeded in doing so with the cordial approval of the Volunteer Force in

general. Lieut.-Colonel A. Humphry, late of the Cambridge University Rifle Volunteers, has the reputation of being not only a brilliant marksman, but of possessing other and more solid qualifications in the way of zeal and experience for the important post for which he has been picked out. The fact that an officer for many years a Volunteer has been selected gives universal satisfaction to the Force, to whom it seemed only in accordance with the eternal fitness of things that such an appointment should not be again given to the outside world, economical considerations notwithstanding. In the matter of a testimonial to the popular ex-Secretary, it is pleasant to notice how freely expressions of regard are forthcoming on all sides, which will no doubt be accompanied in due course, and through the proper channel, by more substantial evidence of the good-will which Captain St. John Mildmay's courtesy and kindness during thirty years of office have won him.

It was satisfactory to note that on the occasion of General Sir Francis Grenfell's visit to Swansea about the middle of the month his guard of honour was furnished by the local Volunteers, a compliment which the gallant and successful General doubtless highly appreciated. That he has a very kindly feeling for the Volunteers is evidenced by his acceptance, just announced as these pages are going to press, of the Honorary Colonelcy of the 1st Surrey Rifles. The association of such a distinguished soldier with the Volunteer movement will have given extreme satisfaction to those interested in the latter, and it is to be hoped the precedent will be largely followed in the filling up of future vacancies. An honorary colonel can, if he wishes, do a great deal for the corps besides offering shooting prizes or occasionally assisting at corps functions, and few are more likely to make the attempt conscientiously and successfully than senior and tried officers of the Regular Army.

Amongst Northern Volunteers there has recently been considerable discussion as to the advisability of supplementing existing inter-battalion contests by company competitions based upon lines similar to those upon which competitions such as that for the Bingham Challenge Shield in Yorkshire are conducted. It has been thought that inter-battalion competitions, although undoubtedly popular and productive of excellent results as regards the marksmanship of the teams actually engaged, do not go far in improving the average shooting of corps. But, on the other hand, it has been urged that company competitions, as applied to a large

county in which Volunteers are in considerable numbers and very scattered, would be cumbrous and expensive. We incline to the latter view, and are ready to admit the cogency of the additional argument that it is questionable whether company competitions, however strenuously advocated by individual enthusiasts, would be really popular with the general run of corps and companies. That to attain any degree of success this is an essential qualification goes without saying, for a county company competition in which a really respectable proportion of companies from certainly eight out of every ten battalions in the county was not included could hardly be called a representative one, nor could any trophy or decoration earned by the victors be looked upon as carrying with it any special honour. It cannot be denied that there are numerous company officers to whom the study of musketry is a matter of very little moment compared with other more attractive attributes of their position, and it is to be feared that these would be rather a thorn in the side of any movement requiring the exhibition of any abnormal interest in rifles and ranges, targets, sighting, and so forth. In the matter of inter-company competitions confined to the regiment, there is no sort of question as to desirability and feasibility, but when a step further is suggested the chances are greatly in favour of an early collapse. When companies individually can take more interest in their shooting than too many of them do at present, then and then only can it be expected that company teams will be found to make the necessary sacrifices of time and money in competing for the honour of securing for the company a county prize. In other words, musketry requires to be stimulated a little more freely in the very bosoms, so to speak, of corps before the men can be persuaded to thoroughly enter into the spirit of outside competitions which are not of a very exceptional nature, and which require great patience and involve much expense before the object of the competition can be arrived at.

There has been much talk on the part of the Metropolitan Volunteers as to presenting the Lord Mayor with a testimonial in acknowledgment of his notable appeal to public charity on their behalf. It is not anticipated that any provincial corps will ask leave to join in this demonstration, but surely those of London should be sufficiently grateful for what they have received to make the testimonial a right handsome and hearty one. For have they not had all the indispensable equipment mentioned in Lord Wolseley's circular provided for them—in addition to which some of them have had their debts paid with the most pleasing liberality—

over and above which is there not a surplus sum of between £8,000 and £9,000, which the Lord Mayor and his committee have resolved during the last fortnight to reserve to all intents and purposes for further contingencies likely to affect the comfort or cause anxiety to the minds of the Metropolitan Volunteers? With this last piece of selfishness we own we are thoroughly dissatisfied, as who will not be who cares a jot for the Volunteers of the provinces? Surely, when the objects of the "Patriotic Fund" were practically attained as regards London corps, the balance of what was a national subscription might well have been apportioned to provincial committees to enable them at any rate to start their subscription lists with an appreciable sum. The refusal on the part of the Lord Mayor and his committee to take even this moderate view, and by so doing to wipe out much of the injury they have caused to Volunteers in the provinces by their hasty and narrow-minded action from the first, has already formed the subject of severe comment, and is certainly not calculated to either promote general efficiency or sustain the general good feeling which ought to exist throughout the entire force.

In the midst of the Lord Mayor's somewhat ostentatious distribution of the results of his collection, the appeal of the London Irish for assistance in providing new head-quarters for the corps is not exactly timely. That the erection of good quarters is an excellent and desirable object we cheerfully admit, but looked at a little closely, the appeal before us would appear to be surrounded by some peculiar anomalies. What we should like to know clearly is whether the London Irish have received anything from the Lord Mayor's Fund, and, if so, how much? For it seems that towards the expense about to be incurred in the matter of new quarters some £2,000 has already been raised in the corps itself. If this is the case, and the corps has received assistance from the Lord Mayor's Fund, surely the public will have a right to complain, and provincial Volunteers the right to envy the superior "cheek" of their London *confrères*. For as long as the Volunteers uphold rigidly the principle that it is Government who should provide equipment, they have some shadow of reason for what has been the common practice of letting the equipment question slide, and in the meantime spending their own money and as much as they could get out of the public in luxurious quarters. But if it has happened, or does happen, and the fact of the occurrence transpires, that a Volunteer corps which can find £2,000 towards a new roof-tree has accepted a share of the public alms towards its equipment,

and anon wants an addendum of public alms towards the extra adornment of the aforesaid roof-tree, there will be questions asked neither pleasing to the *amour propre* of the Volunteer nor calculated to enhance his popularity.

During the past month the Militia have been more or less gratified by the removal from their shoulder-straps of the letter "M," which many of the "old constitutional force" have apparently looked upon as an unnecessary and obnoxious distinction. The change naturally suggests a reference to Volunteer uniforms, as to which every now and then a spasmodic howl is uttered by those who, with fervid conscientiousness, object to the *downright* indignity of wearing the pouch-belt while the Regulars and Militia wear the sash, and who would prefer serving their country in time of need and otherwise with gold lace on their uniforms to doing the same with lace of less costly and showy description. We probably only echo the views of the large majority of thinking Volunteers when we say that there are discrepancies about Volunteers' uniform, but that they affect the whole dress rather than such details as one particular appendage or adornment. Either the uniform of the Volunteers should be entirely distinct from that of the Regulars, or it should be assimilated to it on purely consistent principles. If, as we are led to believe on every possible occasion, where the theory does not involve inconvenient concessions, it is the idea of the authorities to bring the Volunteers as close to the Line and Militia battalions—the term is not quite accurate, but is sanctioned by continued usage—as they can be brought, then pouch-belts and silver lace are, or will be, unnecessary distinctions. Only one distinction is needful, and that is the letter "V," which we should be as sorry to see dispensed with as we are to see the "M" disappearing from Militia shoulders. Our idea of the territorial regiment of the future is that these letters should be the only distinction between the first and second (Line, so-called), third and fourth (Militia), and fifth and sixth and eighteenth, if need be (Volunteer), battalions of Her Majesty's Royal Blankshire Regiment of Foot. Failing this, let the Volunteers dress themselves how they please, and by no means continue to ape a partial association with a territorial regiment of which they are considered worthy to wear the badges while they are forbidden to wear accoutrements and lace which, on the theory of territorial association of battalions, should be common to the entire Service.

In shooting circles, in which at this time of year there is always plenty to do and talk about, considerable interest has centred in the

official results of a weekly "shoot" of the North London Rifle Club, which were issued at the end of the first week of the past month. Under Queen's Prize third stage conditions, which, for the sake of general readers, we may mention are 10 shots at 800 and 900 yards, with the Martini-Henry, that phenomenally steady marksman Sergeant Fulton of the Queen's Westminster, and Queen's Prize-man for last year, made an aggregate of 94 points out of 100, a grand "record" indeed for these distances. His scores at each range were 47, and his 20 shots comprised 15 bull's-eyes, 4 inners, and 1 magpie. At shorter ranges, 600 to 200 yards, but with the distinct disadvantage of beginning at the longer distance, Captain Cowan, of the Royal Engineers, made an aggregate of 99 out of a possible 105. His scores were, out of a possible 35 at each distance, at 600 yards 31, at 500 yards the possible 35, and at 200 yards 33. The value of clubs in bringing such results as these within the region of practical attainments cannot be over-estimated, and the North London Rifle Club may well be complimented on having been able to give to the world such a startling exhibition of the prowess of its members.

The Report on the Annual Meeting of the National Artillery Association, which was concluded on the 23rd of August last, has just been issued, and is in every way a most satisfactory document. The letters from both the Colonel Commandant of the School of Gunnery and from the Camp Commandant detail, in the most pleasant terms, the excellent results of the Meeting and the discipline and soldierly spirit shown by the Volunteers themselves during their stay in camp. The alacrity and good order with which the latter turned out at a sudden alarm of a pretended night attack by the hostile squadron engaged in the Naval Manœuvres is made the subject of particular comment, and is justly taken as indicating a very high order of discipline and zeal. "During the whole fortnight," says the Colonel Commandant of the School of Gunnery, "the weather has been most inclement; the men deserve every credit for the cheerful and contented way in which they have borne the discomfort; the sanitary condition of the camp and the men's health have been excellent." And, again, in reference to the night alarm he writes, "The return to camp was as steady as the fall-in. Notwithstanding the exceptional darkness of the night, the whole was carried out without noise or confusion, and whether for regularity or smartness would have done credit to any body of troops." High praise this for the Volunteer Artillery, and well deserved by a branch which certainly

strains every nerve to sustain the credit of the movement and of individual corps.

Talking of Volunteer Artillery, some comment has been excited by the conditions of the recent Army Order as to the qualifications of Volunteer drivers in batteries of position. It is thought that these conditions, as regards attendance at mounted parades, are somewhat exacting when the expense of hiring teams is considered. It is said that even to make recruits in their first year efficient would rapidly swamp the whole of the extra grant, and that "drills of two hours' duration," such as are held to be indispensable to efficiency, are inconveniently long for Volunteers, the great majority of whom are only free in the evening. Possibly the War Office will find a *via media* acceptable to the Volunteer gunners and to themselves alike, but we doubt if it will be arrived at without further concessions of a pecuniary nature.

Apparently there is a new order of things being incubated for cadet corps, if one can infer aught from the action of the War Office in calling a week or two back for special reports of the strength and efficiency of the various battalions. We own, for our part, to a certain degree of scepticism as to the usefulness of cadet corps in any circumstances, and our views are to some extent supported by the extremely doubtful position of some of these institutions. For the average boy the gymnasium and the cricket and football field are surely sufficient, so far as physical requirements are concerned; and as for discipline, it is to be seriously questioned whether two kinds thereof in a public school—the one scholastic, the other semi-military—are altogether useful, unless in exceptional circumstances such as those which govern the Military College at Cowley. An English boy properly educated, both as regards work and play, is quite as good a specimen of his class as could be desired, without putting him so many days a week into uniform and teaching him prematurely exercises which he may have no sort of real inclination for, and which can at the best do him but very little good. It may seem strange that we should seek to discourage what so many Volunteers—and, for the matter of that, Regulars—regard almost with enthusiasm, but it is our settled belief that the theory of cadet corps as applied to Volunteering is an incorrect one, and that the most that can be said for the idea is that it fosters a military spirit. This military spirit, we hold, does not require a special fostering in Englishmen; and if it did, we think it would be better fostered at a later age.

During the forthcoming winter the London Volunteers may, if they care to accept the kind invitation of the General Commanding the Home District, join with the Household Cavalry and Foot Guards in the winter task of reconnaissance and outpost duty. No doubt many will avail themselves of so favourable an opportunity for acquiring a knowledge of duties which, singularly important as they are, do not largely come, as a rule, within the scope of the Volunteer's practical experience. We hope, moreover, to see, at no distant date, the idea imitated successfully in other commands, where the Volunteers are quite as willing and the authorities quite as obliging as either the one or the other are in the Home District.



A List of Military Inventions

PATENTED DURING THE FOREGOING MONTH.

[This List is specially compiled for the ILLUSTRATED NAVAL AND MILITARY MAGAZINE by Messrs. Rayner and Cassell, patent agents, 37, Chancery Lane, London, W.C., from whom all information relating to patents may be had gratuitously.]

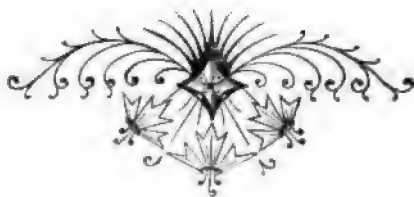
- 14,251. Improvements in magazine fire-arms. PHILIP MIDDLETON JUSTICE, 55 and 56, Chancery Lane, London. September 10.
- 14,397. Improvements in guns for throwing externally-applied projectiles applicable in part to other fire-arms. JOHN CORY HILL (STEPHEN HENRY EMMENS, United States). September 12.
- 14,606. Improvements in sand bags for military purposes. EDMUND J. T. ROSS, 1, The Terrace, York Town, Surrey. September 17.
- 14,637. Improvements in the construction of gun carriages applicable to field pieces. CHARLES OSCAR LAURENCE and HENRY HALEY, 1, St. James's Square, Manchester. September 17.
- 14,675. A projectile capable of being fired through or under water. ELLIAS CHARLES LAURENS, 9, Southampton Buildings, Middlesex.
- 14,944. Improvements in range-finders. EDWIN OADES, Linden House, Wokingham, Berkshire. September 23.
- 15,189. Improvements in magazine fire-arms. KARL KINKA, 1, Queen Victoria Street, London. September 27.
- 15,221. Improvements in the method of loading ordnance. LOUIS GATHMANN, 23, Southampton Buildings, London. September 28.

- 15,480. Improvements relating to the focussing and shutting up of binoculars, opera, field, and other similar glasses. E. TANNEGUY DE WOGAN, 54, Fleet Street, London. October 2.
- 15,505. Communications between the marker and the firing party of rifle ranges. WILLIAM ASHFIELD, 24, Kilburn Square, Kilburn.

SPECIFICATIONS PUBLISHED.

513. WINSER. Disappearing targets. 1889. 6d.
- 15,163. MOORE. Breech-loading fire-arms. 1888. 11d.
- 15,785. DELMARD. Percussion fuses. 1888. 8d.
- 11,665. SCHACKHER. Smokeless gunpowder. 1889. 4d.

The above specifications published may be had of Messrs. Rayner and Cassell, 37, Chancery Lane, at the price quoted.



Reviews.

The Honourable Artillery Company: Charter, Royal Warrants, and Orders in Council, 1587-1889. Edited by Lieut.-Colonel G. A. RAIKES. (London: C. E. Roberts & Co. 1889.)

That ancient fraternity, the Honourable Artillery Company, having within the last few months risen Phoenix-like from its ashes, there is a certain propriety and opportuneness in the Court of Assistants publishing the collective documents which prove its antiquity and distinguished origin. Its legal status was, we are told, vigorously discussed in January last, when the reconstitution of the Company was under consideration. Its rights had been called in question, as everything is in this unbelieving age; it was even hinted that the Charter of Incorporation under the hand and seal of Henry VIII. was non-existent, owing to the fact that in the first instance it had not been entered on the Patent Roll. But in 1829 the assistance of the Public Record Office was invoked, the original Writ of Privy Seal discovered and ordered by the Master of the Rolls to be entered on the Patent Roll. For the last 250 years the Company has been governed by Royal Warrants. They are twenty-one in number, ranging from the 8th of March 1682 in the reign of Charles I. to the 12th March of the current year. Charles II. and James II. were in the habit of suspending the annual elections in order to keep Royalists in office; but they were held again after the Revolution. By the latest Warrant the regulation of the Company is vested in the Secretary of State for War, and the officers hold their commissions during Her Majesty's pleasure. At their own request the Company have been made subject to the National Defence Act, and are thus liable to be called out whenever the Militia is embodied. It takes precedence after the regular forces in virtue of its great antiquity; in fact, it is senior to every regiment in the British Army, according to the compiler of this volume. The assertion may be correct, if the formal incorporation only is held in view.

The Young Soldier in India: His Life and Prospects. By H. S. (London: W. H. Allen & Co. 1889).

This book will doubtless be of interest and use to soldiers embarking for India. The voyage out is described with much truth and vigour, though we confess to never having witnessed

King Neptune's frolic orgies, as practised when crossing the line, and believed they were a figment of the past. It must be borne in mind that now-a-days the British soldier performs the journey to India with much greater comfort than heretofore in one of the Government's magnificent trooping steamers, and during the last quarter of a century his general position under the trying climate of Hindostan has been much ameliorated. Nevertheless, he will find in these pages a tolerably correct representation of the life which lies before him in the "Gorgeous East."

Ballads of the Brave: from the Earliest Times to the Present Day.

Selected and Arranged by F. LANGBRIDGE, M.A. (London: Methuen & Co. 1890.)

This is a book for boys, and especially for boys fond of poetry. Whether such boys exist now-a-days may possibly be open to debate; but for those who really have an inclination that way, the present anthology of martial songs will be highly acceptable. The editor of this collection wisely disclaims the intention of unduly encouraging fighting propensities among his youthful readers; he wishes to applaud the "courage of the Quaker as well as that of the Crusader." Accordingly we begin on the first page with the "Burial of Moses," which, we presume, is intended to train the youthful mind to regard the ultimate fate of all men with equanimity. We soon, however, pass on to livelier themes. The outpourings of many bards have been placed under contribution, with kind permission, for the completion of this enterprize. Gems culled from Byron, Macaulay, and Longfellow are mingled with unconsidered trifles from the pens of newspaper correspondents. But we gather from these pages that a vast mass of poetry is written without the world being aware of it—much more than has hitherto been suspected.

Andrews' Score Register and Notes on Rifle Shooting. (London: Thomas Andrews. 1889.)

We draw the attention of those among our readers who are interested in rifle practice to the above-mentioned little book which, besides a novel and useful method of scoring in matches, contains a variety of directions indispensable to the skilful marksman; the effect of light and the varying conditions of the atmosphere; of the wind, with an ingenious contrivance for registering the allowance to be made for it, together with instructions for cleaning the rifle and keeping it in good order. Much more depends on this latter condition than the beginner usually suspects.

At the Play.

THE theatrical event which has attracted most attention since our last issue is the revival of the "Dead Heart" at the LYCEUM, and the almost unanimous verdict has been that the experiment has been justified. This, however, is the most that can be allowed, and notwithstanding the eminently dramatic period in which the action of the play takes place the production is not one to take rank among Mr. Irving's greatest successes. The dialogue, although it has been taken in hand and doubtless improved by Mr. Walter Pollock, is bald and unsatisfactory, the story is disconnected and full of improbabilities and the opportunities given to the chief performers very slight. One excellent scene, very finely played, between Mr. Irving and Mr. Bancroft is the redeeming point. This latter actor, who was warmly welcomed on his return to the stage, gives a careful and artistic rendering of the part of the Abbé Latour, and when he has anything worth saying makes much of it; but most of his share of the dialogue is so pointless (witness his scene with Miss Ellen Terry in the second scene of Act 1) that his utmost efforts cannot make it telling. Mr. Irving shows, as usual, that he has thoroughly thought out his part, and, as usual, fails to impress us with his rendering of it. His awakening to life and recollection on being freed from the Bastille struck us as so greatly over-elaborated as to become simply tiresome; but there were many fine passages in the last two acts, and his conception of the stern revolutionary leader with the "dead heart" is the most effective part of the character as he presents it to us. Miss Terry is rather artificially gay and youthful in the early parts of the play, and has not much opportunity throughout the character. Her get-up in the first act *à la* Marie Antoinette is a most perfect bit of stage dressing, and could not be improved on. Mr. Righton and Miss Kate Phillips have very poor parts, and are probably not responsible for the little effect they make with them, Mr. Haviland, on the other hand, is very ill-chosen for the part of the Comte de St. Valery, and neither looked nor acted the part well. Mr. Arthur Stirling (an excellent elocutionist) did good service in the part of Legrand. Mr. Gordon Craig made a fairly promising first appearance, and was, of course, welcomed for the sake of his mother. A word of praise should be given to Mrs. Carter for her telling sketch of a woman of the people.

Although the piece is, of course, well mounted, there is none of the elaboration to which we are accustomed at the LYCEUM, and

the play will not attract solely for its scenic effects which have often been excelled at Drury Lane, the Princess's and the Adelphi.

Next in interest to the above and more successful in the result has been another revival, that of "Caste" at the CRITERION. It is hard to judge an old friend impartially, and we must own to a very old and warm friendship for this the best of Robertson's domestic stories. It still amuses, interests and affects us, and, even if poorly acted, we should sit it out with pleasure. But it is by no means poorly acted at the CRITERION, and if the inevitable comparison with the old cast at the PRINCE OF WALES brings many regrets there is at least one rendering equal to the original and only one real mistake and conspicuous failure. This last is, of course, the Marquise of Mrs. Charles Poole, which is so bad, so wanting in refinement and appreciation, and so essentially *un-aristocratic*, that the scenes in which she appears are terribly marred, and one wonders how a manager who got together the rest of the troupe could possibly have engaged her. The Marquise has been called "a bore" by most of the critics, but we cannot say we ever found her so when in the hands of Miss Larkin, Miss Le Thiere, or Mrs. Stirling. Mr. Brookfield's Sam Gerridge, on the other hand, is a marked success, as good, we think, in its way (and we can hardly say more) as Mr. Hare's was in *its* way. His cockney intonation is perfect, his get up, as usual, artistic to the smallest detail, and the whole character "a bit of nature." Miss Olga Brandon is also very good, except for some over-acting in the last act; and the want of the quiet dignity which Miss Lydia Foote made so telling when she forced Eccles to give back the rattle, and probably the very pretty but difficult speech in the second act has never been more delicately given. Mr. David James' Eccles is his own, and is certainly amusing, especially in the snatches of songs; but it is not the study of character George Honey gave us, and offends by over-doing more than once—for example, the reiteration of "stingy cat," and the spinning out of the collection of tobacco from the table and his pockets. Miss Lottie Venne has an uphill task which enlists one's sympathies on her side, and deserves great credit for the plucky way in which she meets her difficulties, but there is too much evident effort, and a part like Polly should have the spontaneousness of Mrs. Bancroft above everything. She was most at home in the last act, though we must own to having thought her description of the ballet, which has been specially praised, her weakest point as compared with the original Polly. However, no other actress that we know could have come as near Mrs. Bancroft in the part. Mr. Elwood is a weak Hawtree, and seems to halt between a natural inclination to copy Mr. Bancroft and a wish to be different—the result is that the difference is chiefly observable in opportunities missed and points misunderstood. Mr. L. Boyne was well suited as George D'Alroy. He makes him somewhat of a sawney, but so does the author.

DRURY LANE has produced a series of telling pictures and situations under the name of "The Royal Oak," which deserves popularity in many respects though it cannot be called a well arranged play. Mr. Neville makes a much better Charles II. than one would have expected, and if the King were not, at the period of the play, a very young man would look the part well; while Mr. Harry Nicholls, and that excellent actress, Miss Fanny Brough, give special point to the comic scenes, the former keeping his humour much more within bounds than usual. The scenery and dresses are both good, Boscobel Wood and the Beach at Shoreham being specially effective, though the latter is somewhat marred by that blot on most open country scenes, the formal sky borders cut in an arch—a difficulty which our scene painters have not yet conquered.

Two rather melancholy exhibitions are being given at the OPERA COMIQUE and TOOLE'S, the former a heavy and mediocre opera on the subject of the Lady of Lyons called "The Castle of Como," and the latter an eminently pointless and feeble three-act farce, "The Bungalow," which is entrusted to a company capable of better things. Among them is Mr. F. Kaye, a new comer, who made the very most of the character entrusted to him.

The COMEDY has added to its programme Mr. Solomon's musical version of "The Area Belle," containing some very pretty airs, and in which the music is skilfully suited to the situations. Miss Alma Stanley makes a capital Penelope, and both acts and looks the part thoroughly; and Mr. Lugg is excellent as an Irish Tosser, winning special applause for his song, "That's what's the matter with the Missus;" but Mr. Penley does not strike us as happily placed in the part of Pitcher, and, indeed, his rendering of this part—once a favourite of Toole's—shows more clearly than ever how little true art there is in this actor's tricks and mannerisms.

The AVENUE has produced a successful comic opera, called "La Prima Donna," the music being by Signor Tito Mattei, in which Miss Sara Palma appears with much success in the title rôle. The story, which is based on the idea of a dramatic troupe taking the place of the courtiers who have deserted their impecunious prince, ought to give good opportunities, but these are hardly made the most of. Mr. Alec Marsh, Mr. Tapley, and Mr. Chevalier make the most of their parts. The scenery and dresses are specially pretty.

At the GARRICK the run of "The Profligate" has been resumed, with the original cast, except that Mr. D'Orsay takes Mr. Hare's part, while the rehearsals of "La Tosca," which is to be produced next month, go forward. In the latter piece, Mrs. Bernard-Beere and Miss Rose Leclercq will appear.

The GLOBE will be reopened by Miss L. Fuller, an American actress, with "Caprice," just too late for a notice in this month's issue; and later on the VAUDEVILLE, PRINCESS'S, and ROYALTY will be opening their doors.



Pieces already noticed and still running.

ADELPHI.—“London Day by Day,” melo-drama, Mr. G. Alexander, Mons. Marius, Mr. Beveridge, Mr. Shine, Mr. Abingdon, Miss Alma Murray, Miss Mary Rorke, Miss Kate James, Miss Clara Jecks, &c., and a farce.

COMEDY.—“Æsop’s Fables,” Mr. Penley, Mr. Everard, Miss Alma Stanley, Miss Goldney, &c., and “Penelope,” musical farce, Mr. Penley, Mr. Lugg, Miss Alma Stanley, &c.

COURT.—“Aunt Jack,” three-act farce, Mr. Arthur Cecil, Mr. W. Grossmith, Mr. Eric Lewis, Mr. F. Mervin, Mr. A. Aynesworth, Mrs. John Wood, Miss Filippi, Miss F. Wood, &c., and “His Toast,” Mr. E. Phelps.

COVENT GARDEN.—Promenade Concerts, under the direction of Mr. Freeman Thomas ; Conductor, Mr. A. Gwyllym Crowe.

GAIETY.—“Ruy Blas and the Blasé Roué,” burlesque, Mr. F. Leslie, Mr. F. Storey, Mr. C. Danby, Miss E. Farren, Miss Marion Hood, Miss Sylvia Grey, Miss Letty Lind, &c.

GARRICK.—“The Profligate,” drama, Mr. Forbes Robertson, Mr. Lewis Waller, Mr. D’Orsay, Mr. S. Brough, Miss Kate Rorke, Mrs. Gaston Murray, Miss O. Nethersole, &c.

GERMAN REED’S ENTERTAINMENT.—“Tuppins & Co.,” musical comedy, Mr. A. German Reed, Mr. Walter Browne, Mr. Duncan Young, Miss Fanny Holland, and Miss Kate Tully, and “My Aunt’s in Town,” Mr. Corney Grain.

HAYMARKET.—“A Man’s Shadow,” melo-drama, Mr. Tree, Mr. Fernandez, Mr. Kemble, Mr. C. Collette, Mrs. Tree, Miss Norreys, Miss Neilson, Miss Minnie Terry, &c., and “Done on Both Sides.”

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Foreign Sequine Magazines.

SUMMARY OF ARTICLES.

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(Paris: 37, Rue Bellechasse.) 23rd August and 1st, 18th,
22nd, and 29th September 1889.

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—French Military Schools, Past and Present (*continued*)—Historical Comparisons between the French Recruiting Laws of 1868 and 1889—An Interview with Edison.

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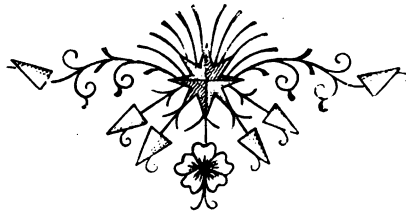
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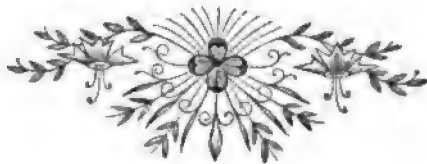
Vol. III.

Charles the Twelfth and Aurora von Königsmarck.



THE story of the Triple Alliance, formed to rob the youthful Charles XII. of his inheritance, is well known. How the newly-crowned King, forcing a landing not far from Copenhagen, extorted the peace of Travendal from astounded Danes; how, turning rapidly on Peter the Great, he defeated him at the glorious battle of Narva, and finally disposed of the third member of the coalition, Augustus, Elector of Saxony and King of Poland, by routing his army on the banks of the Dwina. This happened in 1701, when the King was but nineteen years of age. Afterwards, taking up his winter quarters at Würgen in Livonia where, notwithstanding the rigour of the climate, he lived under canvas, warming his tent, as the poet Tegnér sings in *Axel*, with red-hot cannon-balls, he occupied his leisure in negotiating with Augustus, the question being how far that monarch as King of Poland was responsible for his actions

as Elector of Saxony. The Polish Diet were anxious to dissociate themselves from their King's policy, but Charles did not think fit to let his adversary off under this subterfuge, the more especially as an insurrection in Lithuania, which constituted the western moiety of the Republic, harassed and annoyed the Swedish forces. Under these circumstances, and in the hope of mollifying the youthful hero by the allurements of female beauty, Augustus despatched the lovely and accomplished Aurora von Königsmarck to the Swedish camp. The Countess enjoyed the closest intimacy with Augustus, and was fully empowered to treat with the young King, whom this siren felt sure of ensnaring in her toils. In this expectation, however, she completely deceived herself, for on arrival at Würgen she was informed that Charles declined to see her. Thus admonished, and foiled in her designs, Aurora lay in wait for him in her litter till the hour came when he sallied forth with his suite for the daily ride. Charles, however, courteously raised his hat, made a frigid bow, and rode past and away. It is this episode which is represented in our frontispiece.



Great Commanders of Modern Times.

By WILLIAM O'CONNOR MORRIS.

PREFACE BY THE EDITOR.



It will doubtless appear to some that this is a trite subject whose interest has long ago evaporated, exhausted by the numerous and competent pens which have treated it. The soldier, at all events, will judge otherwise, and conclude that the careers of that small group of demi-gods, commonly known as "great generals," afford matter for consideration which can never tire, and which gains in interest the more it is analysed. As we vary our point of view, so the prospect grows upon us and the more we admire its details. Again, passing from select readers to the multitude, we have the sanction of a most sagacious observer of mankind for retracing the ground which has been so often trodden aforetime.

*Difficile est proprie communia dicere ; tuque
Rectius Iliacum carmen deducis in actus,
Quam si proferres ignota indictaque primus.*

This being so, we have judged that both for the general public and the military a concise summary of the campaigns of the most eminent of these great military leaders will not prove devoid of attraction, especially from the pen of one whom a civil career has left free from the trammels of prejudice and the study of law has trained to weigh conflicting evidence. These biographical summaries will include the following names :—

1. Turenne.
2. Marlborough.
3. Frederick the Great.
4. Napoleon.
5. Wellington.
6. Moltke.

In one particular, however, we find ourselves somewhat at variance with the writer ; we are of opinion that he hardly

attaches sufficient importance to the influence of Turenne's predecessor, Gustavus Adolphus, in the development of the military art. We ourselves agree with Gfrörer, his German biographer, that the Swedish king was the father of modern strategy, and the first really great general since Julius Cæsar. As Judge O'Connor Morris points out, many great soldiers lived during this long interval of time, but in our opinion (and it is in accord with Napoleon's) it was the campaigns of the Swedish hero, and notably the Thirty Years' War, which first revealed the dawn of that science which in later days was brought to such perfection by his successors. The tactical improvements introduced by Gustavus were extensive, though cavalry still played too exclusive a rôle in his engagements; his reforms in the armament and equipment of his troops were remarkable; nor is the military historian oblivious of his services to good discipline and morality by the Articles of War which he compiled and promulgated.

Gustavus Adolphus, when he ascended the throne at the tender age of seventeen, found his realm engaged in hostilities with Denmark, Russia, and Poland. His successor, Charles XII., curiously enough, was similarly entangled, but promptitude and good fortune in each case enabled the monarch to assail his enemies in succession and beat them in detail. The Danes already occupied the southern provinces of Sweden and, in the spring of 1612, they advanced in two columns, intending to move on Stockholm by the routes east and west of the Western Lake which give access to the capital. This afforded the boy-king an opportunity for signalizing his latent military talent. Posting his forces at Jönköping, at the southernmost extremity of the lake, he struck alternately at the divided columns of the Danish army till he thrust them in disorderly retreat back to the sea-coast. Thus early was the leading idea which governed the defence of France in 1814 foreshadowed amid the rocks and lakes of Sweden. Peace with Denmark resulted in 1613, and through the mediation of James I. of England.

Russia was next assailed. Semi-barbarous at the time, that State was in the throes of revolution brought about by the extinction of the House of Ruric; and a project was actually on foot for her dismemberment, one half to go to Sweden, the other to Poland. But Muscovite patriotism defeated its execution. Michael Románoff was, in 1613, elected Tsar. Gustavus at the same time landed in Esthonia, but effected little beyond the capture of Gdoff, and in 1617 concluded peace, again through the good offices of England.

The Thirty Years' War was looming in the distance; the diplomacy of the Protestant Powers tended towards a union against the Papacy. Thus both dynastic and religious considerations recommended an attack on Poland to the judgment of Gustavus. Sigismund III., her king, was both a bigoted Catholic and the rightful though dethroned King of Sweden. Nothing could be effected in Germany leaving such an active and embittered foe in flank and rear. At first the King operated from Riga as a base, with the Dwina as his line of operations; but experience soon taught that, to effect his purpose, he must strike vigorously home at the heart of the adversary's power. The theatre of war was therefore transferred to West Prussia, then directly subject to Poland, where he proceeded to establish a solid base on the coast, by making himself master of the fortresses of Frauenburg, Elbing, Marienburg, Stuhm, Mewe, Dirschau, and Oliva. Dantzic was besieged to facilitate communication with Sweden and, in this case, the line chosen by him for an eventual advance into the interior was the river Vistula. In all of his campaigns we find Gustavus keeping up his communications with the coast by means of a great river; he lived in times when railways were not dreamt of and even roads could scarcely be said to exist. A commodious port on the Baltic was also necessary for safe communication with Sweden, and to serve as a *dépôt* for stores. Thus his strategy was far in advance of the practice of his renowned successors Charles X. and Charles XII., who, great soldiers as they were, relapsed into pre-Gustavus methods, though they had both the King's example and that of Turenne before them.

During this "Prussian War," as the Swedish historians designate the struggle with Poland, Gustavus, involved himself in the Thirty Years' War by sending troops to succour the hard-pressed garrison of Stralsund, then besieged by Wallenstein. This affront quickly brought a division of 10,000 Imperialists to the fields of Poland. Nevertheless, the belligerents concluded, in 1629, an armistice for the space of six years, which enabled Gustavus to turn his attention to the horrible struggle which was deluging Germany with blood, while securing his recent acquisitions on the Baltic. In one particular, however, he had persistently infringed the rules of conduct which should guide the great Commander: he had recklessly exposed his life during this Prussian campaign. During an action at Dirschau, the Swedes were on the point of victory when a bullet struck their chief in the shoulder, and he was borne insensible from the field. The

action was stopped in consequence, and it was this wound which ever afterwards made it irksome for him to wear a cuirass, the absence of which probably occasioned his death on the field of Lützen. On several other occasions he escaped death or capture by a hair's breadth. But it is only on critical occasions that the leader of a host ought to risk his life. The interests committed to his charge ought to be paramount in his estimation. Cæsar and Napoleon both well knew when such a course seemed necessary.

We now approach the crowning enterprize of this "Lion of the North," his intervention in the Thirty Years' War, with the glories which were compressed into the short span of life which yet remained to him: an enterprize which he had long dreamed of in secret, and the fatal termination of which he probably only too plainly foresaw.

He landed on the island of Usedom on the 26th June 1630. Separated from the mainland by a narrow arm of the sea, it was admirably suited for the purpose of a maritime base of operations. Gustavus, the first who leaped ashore, sank on his knees, gave thanks to God, and, this done, seized a spade and began to dig the trenches. The island of Wollin was next subjugated, and the command of the mouth of the Oder by this means secured. Tilly was absent, dancing attendance on the Diet at Regensburg; Torquato Conti, his lieutenant, seemed paralyzed by the emergency; Wallenstein had justly been deposed from the supreme command. Embarking on the Stettiner Haff, the "Snow King," as his enemies contemptuously nick-named him, seized possession of Stettin in July. In September he invaded the duchy of Mecklenburg, thus extending his area of supply and acquiring a broad and solid base for operating in relief of beleaguered Magdeburg. He drove Schaumburg, Conti's successor, as far as Frankfort-on-the-Oder, and by the close of the year all the Pomeranian strongholds except Colberg, Greifswald, and Demmin, were in his possession. Thus much to prove how systematic was his system of warfare, and to show how carefully he fortified his base before venturing into the interior of Germany.

It must be noted that Gustavus continued active operations throughout the winter, in contrast to the habits of the age. In January 1631 his troops, clothed in sheep-skins, quitted Stettin, and New Brandenburg, Loitz, Malchin, and Demmin fell to their arms. These successes brought Tilly raging with fury on their track. Traversing Brandenburg amid blood and flame, he captured New Brandenburg by assault. Gustavus had skilfully concentrated

his forces to protect the town at Friedland and at Pasewalk, but was informed by his lieutenants that the troops were so demoralized by the idea of encountering Tilly's terrible bands that they were not to be relied on! In this desperate emergency the genius of the Swede stood by him. While Horn disputed the passage of the Peene and Trebel by the Imperialists, the King ascended the Oder with the bulk of his forces, and, taking post at Schwedt, menaced the enemy's right and rear so that Tilly rapidly retraced his steps, and, finding the Swedish position impregnable, continued his retreat to Magdeburg. When the field was clear, Gustavus, dashing out of his camp, appeared before Frankfort-on-the-Oder. On the 3rd April the assault was sounded, the gates were blown open by his petards, and the fortress succumbed amid great slaughter. Shortly afterwards Landsberg encountered a similar fate.

In May the fall of Magdeburg startled the civilized world—a disaster to be ascribed to the obstinacy and timidity of the Saxon and Brandenburg electors, who hesitated to afford Gustavus their support. In plain words, the King resolutely declined to advance to the city's relief till he had safe-guarded his line of retreat in conformity with the maxims of what we now-a-days call strategy, but with him was merely martial instinct. Possession of the fortresses which secured his line of retreat was deliberately withheld from him by these Protestant potentates until too late. But the bestial fury of the Imperialist soldiery robbed Tilly of the fruits of victory. Instead of acquiring a pivot whence to dominate North Germany, he was constrained to slink back into Thuringia and the banks of the Unstruth.

The indignation aroused by this massacre throughout the Protestant world enabled Gustavus to coerce his brother-in-law of Berlin; a treaty of alliance signed and sealed safeguarded the Swedish rear, and the King was in a position to execute a general advance across the Elbe which placed his strategic front in a direction parallel to his base. Having effected the passage near Tangermünde, he pitched his camp at Werben, near the confluence of the Havel and Elbe, across which he constructed a bridge. Immediately on receipt of the news, Tilly, uniting with Pappenheim at Magdeburg, flew to the assault, but soon experienced his opponent's mettle. The King surprised the Imperialist advance-guard by night near Burgstall, and destroyed 2,000 of their cavalry. Tilly reconnoitred the works at Werben, but, not liking their aspect, retired to Eisleben. He had lost one quarter of his numbers, but

was there raised to 80,000 men by the arrival of troops, liberated from Italy by the treaty of Cherasco, under Count von Fürstenberg, so that he was in a position to enforce the Imperial summons that the Saxon Elector should surrender his army and revenues for Catholic purposes. The insolent demand drove that Prince into the arms of Sweden, and a convention was signed which placed his army, together with Wittenburg, at the disposition of Gustavus. Leipzig capitulated to Tilly and the Swedes crossed the Elbe, effecting a junction with the Saxons on the banks of the Mulda. Two days later (the 7th September) was fought the battle of Leipzig, which justified all the plans and precautions of the Swedish strategist.

Into the details of that great conflict it is not our business here to inquire. The splendid tactical *coup d'œil* of Gustavus has never been called into question. Let us rather consider how he profited by this amazing triumph. While the adversary withdrew into Thuringia, Gustavus struck right across his communications with Bavaria, pressing along the "Priest's Lane," the rich string of ecclesiastical principalities which then lined the banks of the Main—that march which is mentioned with admiration by our present biographer of Turenne. He thus provided himself with a new and fertile base for operating against the heart of the Empire at the expense of the Catholic party, while the Saxons invested Leipzig and defended the line of the Elbe from the enemy in Silesia. The Swedish King jealously guarded his communications with the sea, which were demarked by the rivers Saale and Elbe. Thuringia was garrisoned by Weimar troops; Halle by those of the Prince of Anhalt; Banér invested Magdeburg, while Tott held Mecklenburg in subjection.

On the 26th September the King's army, leaving Erfurt, began to ascend the Main, and on the 10th October they took the episcopal fortress of Würzburg by assault. This calamity drew Tilly in hot haste to the south. Towards the end of October his army, 40,000 strong, was bivouacked along the Tauber, where, on the night of the 23rd, Gustavus again cut up three Imperialist cavalry regiments which had bivouacked in an exposed position. After a futile demonstration against Ochsenfurt, where he lost heart on discovering the Swedes drawn up beyond the Main, Tilly retreated in the direction of Nuremberg, when Gustavus, leaving Horn to observe his movements, sped along that river to Frankfort, into which capital he made his triumphal entry on the 17th November 1631. Meanwhile his antagonist, as if crushed in

spirit by the swift ruin which had overtaken his fortunes, raided about Franconia at random, and seemed utterly incapable of arriving at any fixed determination. Finally he imagined the assault of Nuremberg; but a Protestant soldier, applying a slow-match to his store of gunpowder, blew it into the air together with the projects of his chief, who forthwith left Nuremberg and cantoned his troops in winter quarters around Nördlingen. The Swede, however, was more energetic, and crossing the Rhine at Oppenheim in defiance of the troops of Spain, gained possession of the great fortress of Mentz as the reward of his valour and activity. Here Gustavus spent Christmas with his Queen and Chancellor, Oxenstierna, who had come from Sweden to meet him. He was at the high pitch of his prosperity, courted by the petty princes of Germany and by the envoys of more considerable Powers. He was dreaming, it was said, of a Protestant Empire. But France, his ally, had taken umbrage at his successes. Richelieu endeavoured to arrange a pacification, but the penetration or ambition of Gustavus impelled him to decline these overtures.

Early in 1632, Tilly, advancing from Nördlingen, surprised Horn at Bamberg, forcing him down the valley of the Main till he was supported by the King with 40,000 men. The Imperialists then retreated in their turn, and Gustavus, suddenly crossing the river, nearly succeeded in cutting them off from the Danube and Ingolstadt. Having entered Nuremberg in triumph, he continued the pursuit, and turned the line of the Danube by seizing, at Donauwörth, the only bridge left intact by Tilly between Neuburg and Ulm. Tilly hurried his troops from Ingolstadt to the Lech, in order to dispute the passage of the stream. Dissuaded from attacking by his generals, who urged that Wallenstein's army in Bohemia was threatening his communications with the Baltic, Gustavus persisted in his intention, replying that a demoralized enemy should be crushed without allowing him a respite for recovery; his own retreat by Donauwörth on Mentz was safe. He was out-voted in council, but acted on his own opinion, and his able dispositions were crowned with perfect success. The passage of the rapid current was forced. Tilly, like Turenne, was slain by an unlucky round-shot. Gustavus did not pursue vigorously—that art seems to have been invented by Napoleon—but Augsburg formed a substantial prize for the victor. Here was the cradle of the Protestant faith, and in days of religious bigotry this solemn entry into the city must have caused rapturous sensations in Lutheran hearts. Munich likewise received him with open gates.

While repressing a revolt of the peasantry the King was suddenly apprised that Wallenstein, having seized the Pass of Eger, had entered Franconia, seeking to force the Thuringian defiles, and opened communication with the Bavarians at Regensburg. This was the contingency foreseen by those who had condemned the passage of the Lech. Wallenstein, careless about his own communications or the interests of the Empire he served, and desirous only of fixing his own authority in North Germany while living at free-quarters, had thrust himself between the Swedes and the Baltic Sea. In June therefore the King, hurriedly retracing his steps, crossed the Danube at Donauwörth in the endeavour to cut off the Bavarians in their march northwards to join Wallenstein. In this he failed, but narrowly. The enemy had given him the slip by requisitioning carts for their conveyance. He entrenched himself at Nuremberg, was followed thither by Wallenstein, and a terrible drama of slaughter, disease, and starvation, which seemed to typify all the plagues of Egypt, was enacted around that city. It resulted in a drawn battle; and the martial reputation of the Swedish king suffered proportionate diminution. He had been withstood successfully; nay, more, he had been the first to withdraw from it. For this his moral nature was perhaps responsible. He could no longer endure the pandemonium of human suffering which was in progress around him, while to the cynical Wallenstein all this was a matter of indifference. Strangely enough the Imperialists retreated north, the Protestants southwards. Wallenstein swept through Saxony with his ravenous, ruthless hordes; Gustavus once more subjected Bavaria to his requisitions. War was to be made to support war; but let us bear in mind that it was the fond hope of Wallenstein to establish an empire for himself in North Germany; while it is surmised that his adversary held not dissimilar views, though with nobler aspirations; at all events his strategic base at this time was the city of Mentz and the fertile valley of the Rhine in its proximity. But the inhuman atrocities of the Imperialists in Saxony were again too much for the sensitive nature of Gustavus; in addition to which, the statesman will note that the Elector, a dubious ally, was likely to make terms with the oppressor, and this would signify a permanent severance from Sweden which could not be acquiesced in. On the 11th October, the King directed his army north *viâ* Donauwörth in two columns, and by the end of the month was able to review them reunited at Erfurt. Unfortunately his allies, the Saxons and Lüneburgers were still beyond

the Elbe, and a flank march in front of the concentrated Imperialists became indispensable in order to effect a junction; for Wallenstein and Pappenheim had judiciously united their forces near Leipzig, while George of Lüneburg had disobeyed the King's orders, which enjoined him to rendezvous in Thuringia, and the Saxon Elector, as if paralysed by dread of Wallenstein, was still in the depths of Silesia. Grimma was the point indicated for concentration, thus well within striking distance of the enemy; wherefore Gustavus left Naumburg in this direction on the 5th November. On the march, however, an intercepted letter was placed in his hand. He learnt that Wallenstein, deeming the campaign ended for that year, had permitted Pappenheim with 10,000 men to depart on a raid into Westphalia, and had cantoned the remainder of his forces in and around Lützen. At this sudden crisis, Gustavus proved his title to a niche among the "demi-gods" of war. Instantly wheeling his columns to the left, he advanced to the attack across the vast plain which leads to the town of Lützen. But "Man proposes, God disposes," an adage which is peculiarly applicable to warlike enterprize. The passage of the Rippach stream, strenuously defended by Isolani's Croats, stopped the Swedes till nightfall, a delay which enabled Wallenstein to assemble his scattered forces; while a dense fog next morning, which did not lift till 11 o'clock, prevented the attack taking place at an early hour, and so afforded time for Pappenheim to return with his troops to the field ere the close of the battle. But by this time the great King had breathed his last, and Pappenheim roamed the field in vain in order to cross swords with him. After a desperate struggle, the Catholics suffered defeat, but the loss of the Protestant champion converted disaster into a victory for their faith.

In the long struggle which followed after his death, and lasted no less than sixteen years, the name of TURENNE first became known to fame.

I.—TURENNE.

I REMEMBER hearing a soldier of promise remark that war had so completely changed that it was useless to study the campaigns of Napoleon. This foolish paradox represents ideas too common among military men of late; and is about as true as an old notion, rudely exploded on the great plain of Ansterlitz, that Frederick's usual method of giving battle was infallible,

under all circumstances, that a long flank march under the guns of an enemy in position is scientific strategy. An opinion is abroad that German genius has wrought such a revolution in the art of war, that all that has gone before is obsolete; that Moltke is a faultless commander, whose exploits surpass those of all chiefs; nay, that mechanism and organization are the best means of assuring success to armies in the field. It is time to expose the perilous errors, mixed with particles of truth, in these shallow statements. The subordinate methods and rules of war have been largely changed, in the progress of the age, and especially through its material inventions; but the higher parts of the art can never vary, for they have their origin in the faculties of man, as grandly developed in Cæsar and Hannibal as in the great captains of modern times; and the exhibition of these, whatever may be the conditions of time and other accidents, will always be matter of fruitful study. As for the "faultlessness" of Moltke, that distinguished man would be the first to admit that, like all generals, he has made grave and palpable errors. Extraordinary, indeed, as have been his achievements, his campaigns in Bohemia and France show that his strategic and tactical mistakes were many; and though he is a real chief of the Napoleonic school, he has done nothing that can be compared to the movements round Mantua in 1796, to the Alpine march that led to Marengo, to the manœuvres that immured Mack in Ulm, to the last swoop on Belgium in 1815. That mechanism and organization count for much, is a truth as old as the days of the Legions; but the genius of leaders in directing armies has always been the chief element of success in war; and, so far from this being less the case at the present day than it has been of old, this influence is now more than ever decisive. It is obvious, in fact, that the powers of the chief will have increasingly greater effect as armies have grown to immense proportions, and military movements have become more complex, more extended, and, above all, more rapid; and if a mere tactician will, perhaps, do less, on a given field, than a century ago, victory in a campaign will, in this age, in the main, depend on superior strategy.

I purpose, in this and subsequent articles, to endeavour to illustrate the main principles and permanent lessons of the art of war in brief sketches of the lives and the deeds of famous commanders of modern times; and I shall try to dispel the notions that military history before Sadowa is a mere old almanack, and that the exclusive study of modern Prussian routine is the best education



TURENNE.



of the accomplished soldier. For authority, I need only refer to Napoleon.* “Tactics,” wrote that master of war, “manœuvres, the science of the engineer and of the artillerist, can be learned in treatises, like geometry; but knowledge of the high parts of war can be acquired only by study of the history of war, and of the battles of great captains, and by experience.”

I have placed Turenne at the head of my list, not only because he comes first in time, but because the art of war made immense progress during the long career of this illustrious chief, was greatly improved by his powerful genius, and gradually acquired a modern aspect. Before I attempt, however, to sketch his exploits, I would say a word on the condition of the art before it passed into his master hand. The leading maxims of war were fully understood; and great commanders had, in many a contest, shown what the qualities are which ensure success in the strife of opposing armies. That a general in a campaign should have a distinct object, that he should steadily endeavour to carry it out, and that he should so combine his means as to promote his ends, were recognised and approved principles; and the value of intelligence in great movements, of energy and skill in the direction of troops and of careful administration in military affairs, had been illustrated by fine examples. Passing, too, from these universal truths, the principal rules of strategic science had been ascertained in their main outlines, and ably brought to the test of experience; nay, war had exhibited grand instances of strategy, whether of offence or defence, which, founded as it is on the peculiar character and faculties of individual men, had never perhaps more noted champions than Hannibal and the Roman Fabius. The advantage, for instance, of having the possession of interior lines on a field of manœuvre had been clearly perceived by Guébriant, and was repeatedly seen in the Thirty Years' War; Gustavus had shown what could be accomplished by rapid and well concerted movements against the communications of a hostile army; and Wallenstein had proved how great could be the power of firmness, endurance, and patient skill in resisting even the most able enemy. The art, however, owing to many causes, had not as yet been nearly developed, and had not even approached its present perfection. Fine movements, indeed, were occasionally made; the march of Gustavus, for example, down “the Priests' Lane,” which carried him into the heart of the Empire, and some of the marches of

* *Napoleon Correspondence*, vol. xxxi., p. 365.

Parma, in an earlier age, remain noble specimens of audacious genius. But strategy was still, so to speak, cramped and limited by all kinds of obstacles, and it could not attain the freedom and grandeur which it has exhibited in the wars of this century. On every theatre of war, from Vienna to Brussels, the state of husbandry was backward in the extreme; there were immense wastes of morass and forest; and even the plain country was not half cultivated. The roads, too, were comparatively few, and even the main roads were, for the most part, bad; the great rivers had but few bridges, and minor streams were not bridged at all; and the passes across the chief mountain ranges were mere paths and tracks, intricate and difficult. The natural impediments to the march of armies were, therefore, many and often formidable; and these were greatly increased by the numerous fortresses which had grown up since the feudal age, and which, covering frontiers and main approaches, and barring the way to an invader's progress, could not easily be passed by even a daring enemy. In addition to this, the means of supply and of transport possessed by modern armies, either did not exist or were very scanty; magazines, trains, and the many appliances that enable troops of this day to live and move, were quite in an embryonic state; and a general was often compelled to rely on plunder and rapine to support his soldiery. In these circumstances, the rapid manœuvres and the grand movements leading to decisive battles which belong to the age of Napoleon and Moltke, could be witnessed only on a small scale, and occurred only in rare instances. War, as a rule, had a contracted aspect; and its ends were often different from those of our time. Beset by impediments, even the greatest chiefs were frequently unable to make long marches, or to attempt anything like audacious strategy; and though Gustavus had fully seen that the main object of a campaign was to cripple an adversary in pitched battles, this was not yet an accepted principle. The art of war still largely consisted in wearing out an enemy in petty combats, in devastation, and wrecking a country, in incursions attended by partial success; and the aim of commanders often was, not so much to defeat a hostile army as to find good quarters in an unravaged province. Campaigns were late, slow, and had small results; as a rule, winter campaigns were rare. Above all, it had become a maxim that before invading an enemy's country it was necessary first to reduce its fortresses; months, and even years, were taken up in sieges; and the art, it has been said, "seemed to flit around strong places." In short, owing to the local accidents and peculiarities of the

seventeenth century, strategy, though in existence and in a state of progress, was still quite immature and imperfect.

The science of Tactics had at this period made less progress than that of Strategy. It had become recognized that the three arms should act in concert, and support each other ; and a distinct unity was seen in battles, unlike the desultory combats of the Middle Ages. But the great principle of modern tactics, that an army should be arrayed on the ground, not according to any unchanging method but so that each arm should turn to account the character and local features of the spot, had scarcely entered the minds of men ; it certainly had not been fully established. An army took its position in a settled order : the cavalry always on either wing, the infantry in the centre, and the guns in front. There usually was a considerable reserve ; and the importance, for instance, of so placing cavalry that it could fall on an enemy from under cover, or of so distributing guns that they could enfilade infantry, or throw a concentrated or plunging fire, was as yet little, if at all, understood. In these circumstances the marked diversity which is a characteristic of modern battles, which makes no one exactly resemble the other, and in consequence of which the tactical skill of a chief in command is taxed to the utmost, existed only to a small extent. There was a distinct sameness in the battles of the age, and these usually consisted in a contest between the hostile footmen and guns in the centre—a mere partial engagement without manœuvres—until the success of the cavalry on either side enabled it to assail the flank or the rear of the enemy. The tactics, therefore, of this period were very different from those of our own ; and this difference was made greater through the change in the relations of the three arms, and in the efficiency and the power of infantry, which has taken place since the seventeenth century. At this period, cavalry was by far the most important and capable arm ; it was, in fact, the manœuvring force in the field. The value of artillery was still unknown, for guns were comparatively few and ill served ; and footmen, often inferior in numbers to horsemen, were a combined array of musketeers and pikemen, invariably marshalled in dense masses, unequal to quick and difficult movements, and utterly inferior to the infantry of this day in relative strength, in the efficacy of fire, in ability either to attack or defend, and in evolutions and manœuvres in the field. Under these conditions, a general gave his chief attention to his most powerful arm ; artillery and foot played a subordinate part ; and, as I have said, the event of battles was usually

decided by a charge of horsemen launched against an exposed side of a hostile army. But if the tactics of those days were unlike ours, it is a mistake to suppose that they did not afford full scope to superior skill and genius. The front of battles was comparatively small; a general's eye could command the whole field, and victory usually depended on the inspiration of the chief, who, with ready design, and at the fitting moment, could direct his cavalry in collected force against a hesitating and already shaken enemy. This was the distinctive gift of the famed Condé, and of that born master of tactics, Cromwell; it was conspicuously proved at Rocroy and Marston Moor; and it is a gift of the very highest order, if it does not exactly resemble the faculties which prepared Ramillies, Leuthen, and Austerlitz. For the rest, an army of this period, considered as a whole, was very different from an army of the nineteenth century; and this, too, affected the art of Tactics. In numbers, it was comparatively small; 30,000 men would be a very large army. It was deficient in unity and combined strength, for it was a mere array of battalions and squadrons; divisions and corps were as yet unknown, and a general-in-chief did not possess the supreme authority now entrusted to him. The discipline, too, and the organization of such an army was still far from good; the troops did not even wear a uniform, and were more akin to a feudal militia than to regular and trained soldiers; the muster rolls were always incomplete, owing to the Falstaffian tricks of officers, as yet subject to little control, and mutiny and insubordination were too common. Such an army, from the nature of the case, would be a weak and uncertain instrument of war; and this alone made the tactics of the day less decisive, as a general rule, in results, than those of later great masters of war.

The art of war at this time, in short, has been happily compared to a bird, which eagerly spreads its wings for a flight, but is held, checked by restraints, to the ground. I pass on to the great captain whose life and career I attempt to illustrate. Turenne was born in 1611, a scion of the princely *noblesse* of France, his father being Sovereign Lord of Sedan, his mother a daughter of William the Silent, who largely transmitted the high qualities of the House of Nassau to her renowned offspring. As has happened with other famous warriors—with Luxemburg, William III., and Wellington—the future master of war was a sickly child; but from the earliest age he showed strength of character. He was educated with remarkable care; and though, unlike Condé, he was not a precocious genius—he remained heavy and dull in exterior through life—

still, even in those years, the assiduous care with which he studied the campaigns of Cæsar, and followed Alexander in his march to the Indus, revealed the natural tendencies of the coming strategist. Turenne entered the service of the Seven Provinces as a private soldier at the age of fourteen; and under the care of his maternal uncle, Maurice of Nassau, and his successor Henry, he took part in the long wars of sieges which marked the conflict with Spain in the Low Countries. He fought his way steadily up from the ranks; he seems to have owed little to birth or to favour; but, though he gained distinction at the siege of Bois-le-Duc, this was not the natural bent of his genius, and the value to him of these essays in arms was probably to teach him the important truth, which he illustrated in many striking instances, that "in war you should march and not besiege," that you should rather out-manceuvre and defeat your enemy than waste months in attacking fortresses which fall of themselves after success in the field. In 1680, when twenty years old, Turenne obtained a regiment from Louis XIII. He addressed himself with untiring diligence to the discipline and the training of his men; and, like Wellington—in matters like this he had much in common with our great countryman—he was soon known as a capable officer, and could justify his boast that his "corps was equal to the best troops of the King's household." The young colonel, however, made no way at Court; its frivolity and luxury were distasteful to a mind singularly modest and sedate; its licentious recklessness shocked a nature formed by the rigid tenets of Calvin; and while Condé was already a star at the Louvre, Turenne, taciturn and awkward, was scarcely noticed. The future great chief of the armies of France served for many years in a subordinate rank; he passed, in fact, through all inferior grades, though his merits were recognized by good judges; but if this term of probation was unduly long, its experience, he has said, was most precious, for it "fully taught him a soldier's calling." Long before the close of the Thirty Years' War, Turenne was known as an able man, though his great powers had not yet been developed. He was singled out for honours at the great siege of Breisach; he showed remarkable skill and firmness in covering a disastrous retreat from the Sarre; and he had won the praise of La Valette and Saxe Weimar for his singular steadiness and coolness in the field, and for the paternal care he took of his troops, a quality in which his comrades of the *noblesse*, brave, but unreflecting, were as a rule wanting. The chief point, however, of permanent interest in this early part of the career of

Turenne is the evidence it affords of the dawn of those powers for which he was to be proudly eminent. He occasionally had an independent command, and in this position he never failed to display the gifts of a true strategist. In 1636 he made a forced march, by which he surprised and routed Gallas. He captured Maubeuge, combining his movements with those of his chief with remarkable skill. At the siege of Turin, in 1640, he out-manceuvred and baffled his enemy, and kept away the relieving army; in 1643 he made a feint against Alessandria, which deceived his adversary, and enabled him to seize the fortress of Trino.

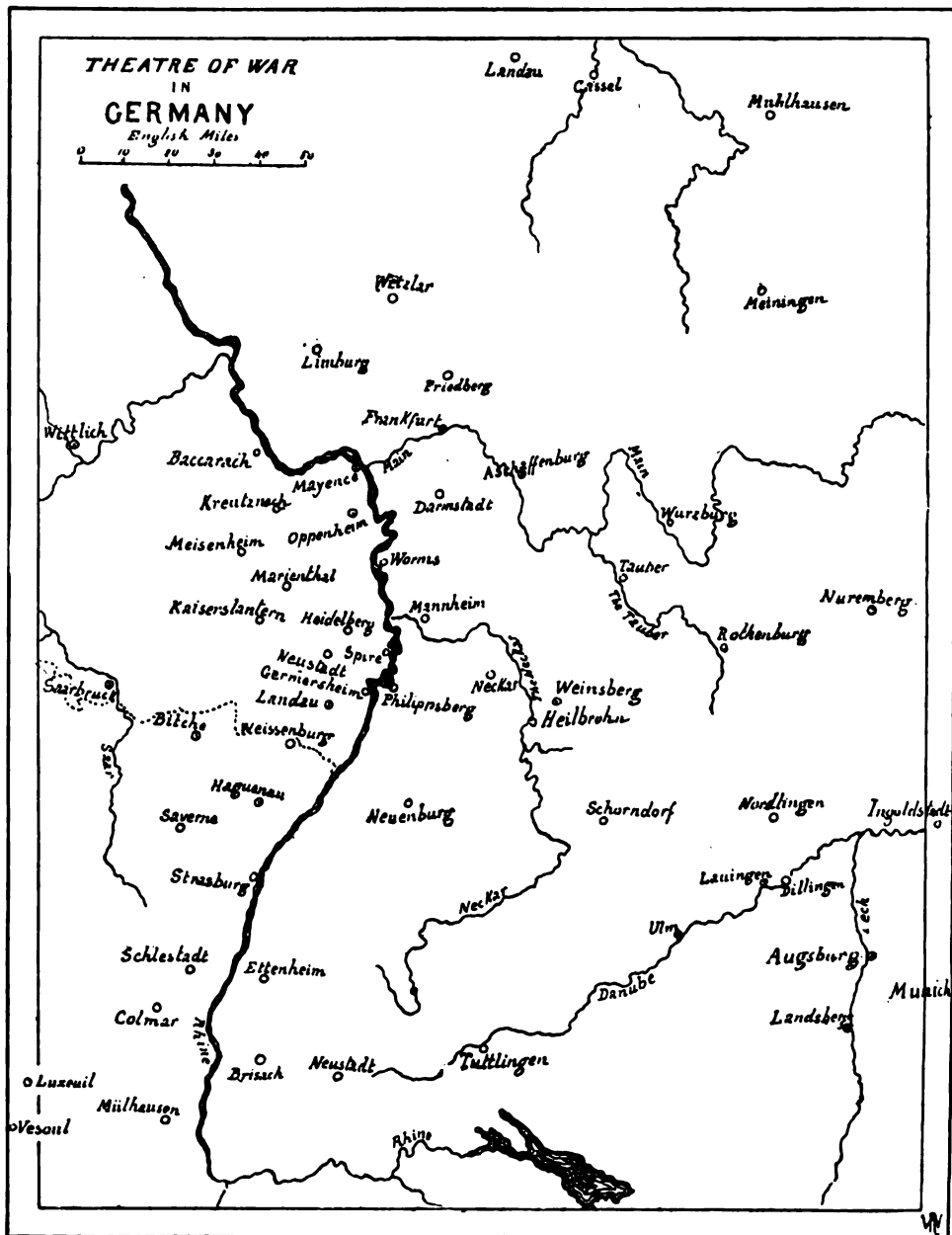
In 1643, as the Thirty Years' War was nearing its end, Turenne received the staff of a Marshal of France. His achievements during the next two years will repay a careful reader's attention; but I can only glance at them in this sketch, for they scarcely reveal his peculiar genius. He took part, under the Grand Condé, in the desperate combats around Fribourg, marked by the daring and vigour of his chief, but, in Napoleon's judgment, worse than useless; we see proof of his strategic powers in his operations between divided enemies in the Palatinate at the close of 1644; and I cannot doubt but that the ~~fine~~ march of Condé down the Rhine, after the fall of Philippsbourg, which made the French masters of Landau, Mentz, and other cities on the German bank, was due to the inspiration of Turenne. In 1645, having advanced to the Tauber, and overrun the Franconian lowlands, the marshal was surprised and routed by Mercy—a Lorraine chief, little known to fame, but a great captain of the Thirty Years' War; and we can gather from this and other instances that the genius of Turenne, rather profound than quick, made him less admirable in the sphere of tactics than he was in the higher parts of war. He was soon again under the command of Condé, and he led the left wing of the French army in the terrible struggle around Nördlingen; but though he contributed to the success of the day, the glory of the victory, doubtful as it was, belongs wholly to his renowned chief, whose tenacity, boldness, and insight on the field, plucked safety and even a triumph from danger. The campaign of 1646 distinctly brought out for the first time the special gifts of Turenne in full relief, and to this day is a strategic master-piece. The Marshal was on the French bank of the Rhine, near Mentz, as the year opened, and Mazarin had directed him to remain in his camps, trusting to a pledge that the Duke of Bavaria would not send aid to the Imperial forces. The Duke, however, broke faith and marched against the Swedes,

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hoping to defeat them as they moved into Westphalia, and to join hands with the Archduke Leopold, advancing in force from Western Austria; and had success attended this operation France would have probably lost her best ally. Turenne made up his mind at once; without waiting for a word from his Government, he broke up from Mentz, moved down the Rhine in a march of astonishing speed for those days, and, having crossed the river as far north as Wesel, he effected his junction with the Swedish chief, Wrangel, on the Lahn, having forestalled his enemy by a movement of singular skill and daring. Turenne and Wrangel were now at the head of an army of more than 20,000 men; the hostile force, about equally strong, fell back to Friedberg, north of the Main; and the Archduke, clinging to his communications, began to retreat to the Danube by an exterior line, through Schweinfurth and Nuremberg, towards the Bavarian plains. Turenne seized the occasion with the eye of genius; holding the chord of the arc, he advanced through Franconia by forced marches, and attained Dönaupflicht, and while his adversary was toiling on his eccentric movement, he crossed the Danube, pushed on to the Lech, and boldly assailed the great place of Augsburg.* He failed in this siege, having been persuaded by his Swedish colleague to attack Rain, a little fortress of no importance; but his subsequent operations were marked by genius and constancy of the highest order. The Archduke, after weeks of delay, had crossed the Danube and approached the Allies, and he took a strong position from Landsberg to Memmingen, in order at once to cover Bavaria and to threaten the communications of his audacious foes, who had advanced into the heart of Germany, far from the Danube and even from the Rhine. It was now November, and an ordinary chief would have fallen back to seek winter quarters, foregoing the gains of the whole campaign; but Turenne resolved to take the bolder course, and, against the advice of all his lieutenants, he made a feint on Memmingen, and then, moving rapidly, seized the communications of the Archduke at Landsberg and forced him, baffled behind the Inn. This splendid campaign—a game of manœuvres in which decisive success was gained without the risk of a single battle, which shows the highest parts of a master of war, and in which Napoleon, a draconic critic, can detect only a small mistake, the weakening the attack on Augsburg

* Compare this with the movement, described on p. 1769, which was made by Gustavus Adolphus in pursuit of Tilly.

to besiege Rain—detached Bavaria finally from the Imperial cause, and, in truth, all but closed the Thirty Years' War.

The campaign of 1647, in which Turenne overcame a dangerous mutiny of the German auxiliaries in the French army, is one of the many instances of the strength of his character. That of 1648, the last of the Thirty Years' War, is a repetition of that of 1646, but scarcely gives proof of equal genius; it is chiefly remarkable as the first occasion in which Montecuculi, a worthy antagonist, and a friend of Turenne in after years, exhibited his capacity in the field. I pass rapidly over the next three years—an unhappy passage in the career of Turenne—for they saw the most illustrious captain of France in arms against the State and the National Government. Strong affection for a despoiled brother, and the artful wiles of a beautiful siren—this was a weak point in the warrior's nature—caused Turenne to join the rebels of the Fronde; but though excuses may be made for him, history has justly condemned his conduct, and, like Marlborough but much less worthy of blame, Turenne is an instance how revolution can pervert even the noblest faculties. Turenne showed his strategic gifts in the contest; he proposed to advance to Paris and to dictate peace, but he was overruled by his Spanish colleagues, and he was soon afterwards beaten by Du Plessis Praslin, in a pitched battle not far from Réthel, a point of capital importance in the wars of that age. Turenne's tactics, Napoleon remarks on this occasion, were faulty and slow—this, in truth, was his least perfect part; but Turenne, and even Condé, never displayed that pre-eminence in war when opposed to France which they exhibited when in command of Frenchmen. Turenne made his peace with Mazarin in 1652, though naturally distrusted by a Court he had betrayed, he soon made his extraordinary powers felt, and in a few months he obtained the supreme direction of military affairs in the war of the Second Fronde. Civil war is never an attractive subject, but in this contest Turenne was opposed to the Great Condé and the forces of Spain, and events have great and peculiar interest. Turenne's splendid faculties, strategic insight, skill in large manœuvres, judgment and constancy were never perhaps more grandly seen. He proved himself far superior to his brilliant rival, though it is but fair to say that the genius of Condé was repeatedly baffled by Spanish obstinacy, and Turenne was justly hailed as the Saviour of France and of the House of Bourbon when in the extreme of danger. He out-manœuvred Condé at Bléneau, near the Loire, in a passage-of-arms singled out

by Napoleon, as a marvellous instance of military skill; and he would probably have brought the war to an end had Mazarin followed his sagacious counsels to march straight on Paris in 1652. When he was compelled to obey the too cautious minister, and to undertake the siege of Etampes—a timid half measure of no avail—he raised the siege at a moment's notice, with the decision that belongs to great captains only, at the intelligence of the approach of Charles of Lorraine; and the stand he made against the Duke's army, which prevented its junction with that of Condé, very probably saved the royal cause. Turenne distinguished himself in the murderous fight of St. Antoine, under the walls of Paris, and in the subsequent game of manœuvres with Condé; and his commanding genius was again seen when a double Spanish and Lorraine army marched towards the capital to assist Condé, and threatened the Government with utter ruin. The Regent and Mazarin, in the extreme of peril, wished to abandon Paris, and to fly to Lyons; but Turenne saw that this precipitate retreat would prove fatal to the Bourbon cause. He insisted on keeping his army on the spot, and, standing in the path of his divided enemies, he baffled the Spaniards on the line of the Somme, held the Duke of Lorraine successfully at bay, and prevented either foe from joining hands with Condé. The results of this generalship, not unworthy of the unrivalled captain of 1814, were magical and completely decisive. Condé and his troops were forced to leave Paris; the foreign invaders fell back to the frontier; the young King and the Court entered the capital, to the joy of the citizens; the Government was replaced in its seat, and Turenne read in the nation's eyes how he had closed the civil war and restored the throne. In this remarkable contest he had given proof, from first to last, of the highest faculties; but those, perhaps, which most deserve notice are his insight in perceiving that Paris was the centre on which to direct all efforts; his firmness in compelling the Court to cling to the capital at any risk, and his astonishing skill in repelling the enemies converging against him in greatly superior force.

Though Mazarin had been replaced in power, Spain, in 1653, was still able to send a larger force into the field than France. Turenne conducted a Fabian campaign on the Oise, baffling the Archduke—his foe in 1646—and taking care to avoid Condé; and he exhibited once more what Napoleon has called “the divine side of the art of war,” in making a stand in a strong position, where Condé had all but brought him to bay, and imposing upon the cowed Spanish chiefs. In 1654 the reviving strength

began to prevail over Spain in decline. Turenne appeared at the head of a large army, and he successfully raised the siege of Arras, the capital of Burgundian Artois, in a night attack of remarkable daring, in which he surprised the Austrian chief and kept skilfully away from Condé's lines. This was one of his greatest exploits in the field, and France acquired a marked ascendancy over her enemies along her northern frontier. I can only refer to the next three campaigns, in which the strategic gifts of Turenne and his admirable firmness were again made manifest. True to his maxim, then a revelation in war—"always march rather than make sieges"—he gradually advanced to the Scheldt and the Lys, turning their fortresses by operations in the field, and sitting down before them as seldom as possible; and in less than three years he had overcome barriers* which hitherto had been deemed invincible, and which had been theatres of war for centuries without great or decisive results, a feat of generalship which astounded Europe. The genius of Condé more than once shone out in his efforts to avert Fate. He destroyed a part of Turenne's army, in the hands of an incapable colleague, at Valenciennes, in 1656; and he brilliantly raised the siege of Cambray, an exploit marked out for praise by Napoleon. The arms of France, however, directed by Turenne, made steady progress despite these checks, and the fine campaign of 1658 brought the contest with Spain to a glorious close. By this time Turenne had secured his position in Spanish Flanders, and was formidably strong. The England of Cromwell was in a league with France, and the allies resolved to attack Dunkirk, the strongest place on the seaboard of Flanders, and long a seat of piracy against British commerce. The fortress was difficult in the extreme to master, not so much owing to its works and defences as to the obstacles formed by the sea, the marshes, the woods, and the canals which girdled it round; and it was protected by a large Spanish force in observation not far from Yprés. Turenne crossed the inundation let loose by the garrison, threw lines of investment round the fortress, and blocked up the approaches along the coast. An English fleet closed the port from the sea, and 5,000 of the renowned Ironsides were disembarked to support the French. These operations, rapid in the extreme for the age, surprised and disconcerted the Spanish chiefs, and they hastily advanced to relieve Dunkirk with an army inferior in force to the enemy, and

* French armies had before this taken many of these fortresses, but they had been retaken on the first turn of fortune.

not possessing a single gun. Turenne broke up from his lines to attack; his left, the English contingent, rested on the sea, covered by the batteries of the English squadron; his centre and right formed a semi-circle, extending to the great canal of Furnes; and as his troops advanced, Condé, it is said, exclaimed to the young Duke of Gloucester that "all was lost." The battle was almost at once decided; Condé, on the Spanish left, did indeed wonders; but the Ironsides, backed by the fire of the fleet—they were praised by Turenne in the highest terms—annihilated the Spanish right in one charge, and the whole Spanish army, deprived of artillery, lost heart and became a mere mass of fugitives. The place fell, and was handed over to England. Turenne, breaking up from his camps, took Bergues and Gravelines, and overran the country, and he only stopped his victorious march at Oudenarde, Spanish Flanders lying as it were at his feet. Napoleon, however, contends that the marshal ought to have done more, and pushed on to Brussels, success which would have brought the war to an end; and this may be an instance, perhaps, in which Turenne's powerful, but somewhat slow intellect erred on the side of too prudent caution. Yet we must bear in mind that the strategy of the seventeenth could not be that of the nineteenth century. Turenne certainly contemplated this very step, but declared that it was not practicable; and, as it was, the campaign was a splendid triumph which soon brought about the Peace of the Pyrenees.

During the next twelve years France enjoyed repose, broken only by a brief contest with Spain, caused by the claims of Louis XIV. on the Low Countries in right of his consort. Turenne commanded the royal army, captured Lille, and overran Flanders; but it is unnecessary to dwell on these easy triumphs. The marshal was now the first subject of France and admittedly the first soldier of Europe; and he played a part of no small importance in the able French diplomacy of the time. He gave much attention also to civil affairs, was a disciple of the renowned Colbert, drew up reports on the condition of France which showed real insight and marked sagacity, and proved that he possessed administrative powers of the highest order in provincial government. Like nearly all the highest *noblesse* of France, he renounced the Calvinist creed of his fathers—the will of the King was supreme in this—but, like the illustrious Villars at a later day he condemned the wrongs already done to the Huguenots, and ventured to utter a weighty protest. His great work, however, at this period, was the reor-



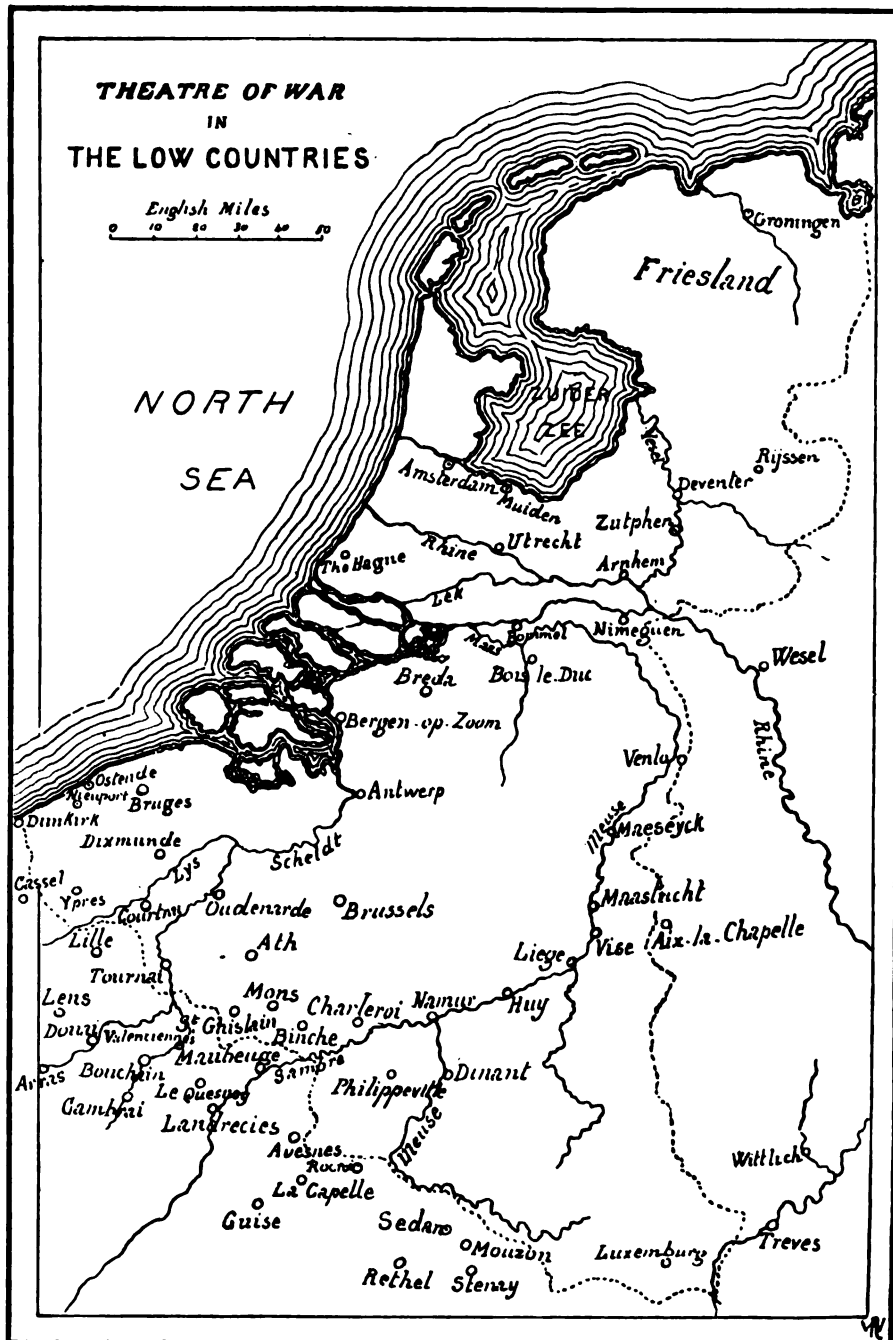
ganization of the military power of France; and though Louvois had a large share in this, Turenne is perhaps entitled to the chief merit. His reforms were thorough and yet practical; he did not change everything, and break with the past; but he so improved what he found existing as to bring it to a high state of excellence, and the French army, in his constructive hands, became a mighty instrument of war. Turenne's method was to leave the army still largely in the hands of the *noblesse*, and to allow it to retain a half feudal character; but he not the less made it the force of the Crown, the disciplined array of an all-powerful monarchy; and he so transformed its institutions and spirit, and increased its strength, as to make it by far the most formidable organization for war in Europe. The *noblesse* were allowed to retain their charges, and to raise their levies as in former days; but they were subjected to the strictest inspection; incapable officers were summarily dismissed, and "men in buckram" and false returns were no longer permitted to exist. While the feudal militia still remained, every inducement was offered to encourage the men to enter the ranks of the regular troops; the temporary disbanding of regiments ceased; and select corps—need we name the *Maison du Roi*, the brilliant victors on many a field?—were carefully formed, and inspired the army as a whole with their gallant and martial spirit. These were great reforms if they stood alone, but the process of improvement went much further. The hierarchy of the service had its rules changed; the general-in-chief was made supreme in everything; the three arms and their chiefs were placed under his immediate control in all respects, and discipline and subordination to one head were thus secured for the first time. Unity of command caused unity in lower spheres; the comparatively loose formations, indeed, of battalions and squadrons were not changed, but every regiment was clad in uniform; and care was taken that all weapons should be constructed and fashioned on the same patterns. Strenuous efforts, again, which reveal the strategist, were made to accelerate movements in war; the arrays of trains and carriages were greatly increased; the system of magazines, of depôts of food, and of field hospitals was immensely improved, and the mechanism of the army attained a degree of perfection never witnessed before. Yet the greatest change of all remains to be noticed—a change, Napoleon remarks, which made this period a new era in war. A master of his art, Turenne had perceived that infantry, hitherto kept in the background, was naturally the most important of the arms; it could accomplish more in his wars of

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marches, even in that age, than the more prized cavalry; and Turenne trebled its force in the French service, reducing horse to much less significance, though cavalry still, no doubt, retained its superiority in the shock of battle. As for artillery, Turenne went with the age; the proportion of guns, though comparatively small as regards the other arms for modern times, was gradually but distinctly increased.

Through these immense reforms, the army of France became, for many years, the terror of Europe; and, except that the changes wrought in formations by the discovery of the bayonet were as yet unknown, it had acquired a really modern aspect. An opportunity arose, in 1672, to prove this tremendous instrument of war. Louis XIV. invaded the Dutch Republic; the French army and that of his allies exceeded 180,000 men, a force never seen since the fall of Rome; and while Turenne and Condé, now restored to France, advanced along the Sambre and crossed the Meuse, the allied contingent under Luxemburg moved down the Rhine by Mentz and Cologne. True to his strategic genius, Turenne insisted, against the advice even of the audacious Condé, on "masking" Maastricht and pressing forward; the operations of the invading host were marked by a celerity hitherto unknown, and in less than two months the hostile armies had crossed the Rhine near the Waal, had attained the Yssel and had moved into the heart of the Seven Provinces. When the victorious French had approached Amsterdam, Condé, always great on a field of manœuvre, entreated the King to seize the dykes, which formed the last defence of the capital of the States; and, had this been done, the fortunes of Europe might have taken a wholly different turn. The golden occasion was, however, lost; time and men were wasted in taking fortresses; and William of Orange, a sickly youth, then for the first time seen on the stage of history, saved the Commonwealth by cutting the dykes and letting loose floods which made Amsterdam an island in the midst of a submerged country, and effectually baffled the French commanders. This bad generalship was due to Louvois, and, it is said, was inspired by the King, never capable in operations in the field; but Turenne must, at least, have assented, and Napoleon severely condemns the Marshal for giving his sanction to unwise counsels which he scarcely could have approved in his heart. This possibly may be another instance in which Turenne was somewhat slow and too cautious; but probably he shrank from opposing the will of a sovereign, then almost an idol, and a minister already hostile to

him ; and it is scarcely to be supposed that a chief of his powers, in full possession of the state of affairs, would have committed a palpable strategic error. Be this as it may, he soon had an occasion to exhibit once more his great capacity. The invasion of the States, and the success of Louis, had alarmed Europe and aroused Germany ; Austria and Prussia joined hands for the first time in war ; and two German armies of superior strength were marched towards the Rhine and threatened Alsace. Louis abandoned Holland and his rapid conquests ; Condé was despatched to defend the Rhine, and Turenne was placed at the head of an army intended to confront the Germans on the Main. The Marshal had soon seen through the projects of his foes ; he judged rightly that their real purpose was to unite on the Meuse with William of Orange, not to venture alone to enter Alsace, and he took his course with characteristic skill. Moving into the region around Trèves, he established himself in the valley of the Moselle, and when the Germans, as he expected, sought to cross the Palatinate from Mayence, he successfully kept them for weeks at bay, held back the army of the States on the Meuse, and completely frustrated the intended junction. This fine strategy provably saved France from an invasion upon her weakest frontier.

Louvois had now openly broken with Turenne ; the King, irritated at the reverse in Holland, took part with the imperious minister, underrating the Marshal's last achievement, and Turenne found little favour at court. It was impossible, however, to question his genius ; he directed the general plan of the campaign of 1673, and he held supreme command on the German frontier. As the Austrians and Prussians fell back from the Moselle, they began to diverge towards the Elbe and the Danube ; Turenne saw his advantage, and crossed the Rhine, and venturing on a winter campaign, despite the remonstrances even of the King, he advanced to the Weser, defeated the Prussians, and drove the Austrians far beyond the Main. Prussia abandoned the Coalition for a time, but the Emperor refused to give up the contest, and Turenne, for the first and last time, was outgeneralled on the theatre of war by an antagonist not unworthy of him. Montecuculi, at the head of an Imperial army, had advanced into the Franconian lowlands, eluding Turenne, who was on the Tauber ; he gained over one of the prince bishops, made a forced march and got over the Main, and then having made a feint on Alsace, he embarked with his troops upon the Rhine, effected his junction with William of Orange at Bonn, and quickly reduced that im-

portant fortress. This, Napoleon has said, is "the darkest cloud on the reputation of this great captain;" but the glory of Turenne was not long in eclipse; and he surpassed himself in the campaign of 1674, the most striking instance, perhaps, of his powers. The success of Montecuculi had again roused Germany; Prussia and the Lesser States took part with the Emperor, and France was threatened with a more formidable League than she had ever encountered before. Turenne directed operations once more; with admirable wisdom he neglected the North, and urged the King to invade Franche Comté, an enterprise crowned with complete success; and he took again his station on the Rhine, watching the masses of foes collected against him. Every movement he made in the contest that followed is a masterpiece of a great strategist. Turenne, crossing the Rhine, advanced to the Neckar, threw himself between the armies converging against him; and, having routed the Austrians near Sinsheim, turned boldly against the Northern Germans, marching from the Elbe and the plains of Brandenburg. To gain time and to check their progress, he ravaged the Palatinate with unflinching sternness; and though history condemns the act, and Turenne only once adopted this course, it was justified by the laws of war of the age—nay, by those of a much later period. The Germans had reached Mentz by the end of August, and before long had entered Alsace; the Imperial army was close at hand, and it was the purpose of the Imperial chiefs to invade France with the combined forces, when the Prussian contingent had come into line. Turenne saw the danger, and did not hesitate; with an energy worthy of the youthful Bonaparte, he fell on his foes before their junction, and he defeated them in a fierce fight at Entzheim, a day memorable if it were for this only—that Marlborough served on the marshal's staff, and received the thanks of his chief for his conduct. This reverse, however, only checked the enemy; the Great Elector brought up his army. Turenne was obliged to fall back to the Vosges, and a huge wave of Teutonic conquest seemed about to overflow the plains of Champagne. Had the Germans pushed on they might have reached Paris, where confusion and terror already reigned; but they paused at the decisive moment. They seem to have dreaded the strokes of Turenne, who had skilfully taken a position on their flank, and they methodically settled in winter quarters in Alsace, having let a grand opportunity pass. The subsequent operations of their great adversary, in conception at least, were of the highest order. Deceiving his enemy and scorning th

hardships of winter among the Alsatian hills, Turenne feigned to retreat into Lorraine; he then counter-marched with remarkable quickness, defiled behind the Vosges with a devoted army which appreciated the admirable skill of its chief, and, having screened the movement by the mountain barrier, broke in through the gap of Belfort on the astounded Germans, and surprised them completely divided and scattered. The effects of this masterly stroke were immense; the Great Elector was routed at Turckheim, Turenne pressed forward and threatened Strasburg, and the horde of invaders, baffled and humbled, were only too glad to get across the Rhine.

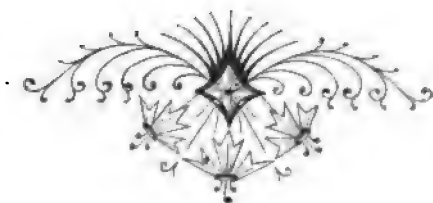
The movement behind the Vosges of Turenne which surprised the Germans and caused their defeat has a certain resemblance, it will be perceived, to the march of Napoleon, screened by the Alps, which after Marengo gave him Italy. Turenne, however, the reader will note, fell on his enemy, when he had reached him, in front, and his triumph though great was not overwhelming; Napoleon descended on the rear of Mélas, and, though he ran many risks, he completely conquered. Turenne, the Emperor insists, would have achieved more had he crossed the Vosges in the middle of the chain, and struck the flank and rear of the Germans; in that event, the invaders, perhaps, would have never been able to attain the Rhine. This criticism is, in theory, perfect; but though Napoleon, in the place of Turenne, would probably have played the more daring game, the Vosges in those days were most difficult to pass; the operation would have been very hazardous, and the two movements, in fact, illustrate the difference between the natures of the two men. I have reached the last campaign of Turenne, a long game of manœuvre between two great strategists, in which the marshal perished on the very edge of victory. The League against France, though shattered, still held together; and faulty generalship having been the cause of the signal discomfiture of 1674, Montecuculi was sent, in 1675, to cope with Turenne, still upon the Rhine. The Imperial commander, having threatened Philipsburg, crossed the river near Spire and invaded Alsace; but Turenne, instead of attacking his foe, crossed the river near Strasburg, and, reaching Wilstedt, struck at the communications of the hostile army; and this forced his adversary to recross the Rhine. Turenne, having gained this strategic advantage, and carried the war into German territory, took a position between Strasburg and Ottenheim, the place where he had bridged the Rhine; but Ottenheim is at some distance from

Strasburg, and the French army was very much divided. Montecuculi approached the Marshal's camps, and missed a grand opportunity to strike, which, Napoleon remarks, Condé would have seized; Turenne, perceiving the danger, raised his bridge, placed it near Strasburg, and drew in his forces; and Montecuculi, again baffled, descended the Rhine and occupied Freistett, his object being to cross the Rhine at that point by means of a bridge, to be sent down from Strasburg—then, it will be borne in mind, an Imperial city—and his ultimate end being to re-enter Alsace. Turenne, however, barred the course of the Rhine, by redoubts and batteries carefully placed; and having thus prevented the passage of the bridge, he, for the third time, out-mancœuvred his enemy and kept him bound with his army to Germany. The antagonists now held their camps for some months, each watching the other, and seeking a chance; but Turenne was the first to move. He crossed the Rensch by an undefended ford; and this movement compelled his enemy to retreat, for it threatened his communications, and almost reached his flank. Montecuculi, utterly foiled and out-generalled, abandoned at once the valley of the Rhine, and made for the defiles of Würtemberg. Turenne, hanging on his foe, pursued; and, by the close of July, he had attained the Salsbach, assured that he would triumph in a great and decisive battle. Fate, however, withheld from Turenne a victory justly earned by his most able strategy. He was struck down by a shot from a hostile battery, and Montecuculi escaped from the toils which had been admirably laid around him. The Imperial chief, indeed—a remarkable man, and in this campaign he was suffering from disease—when apprised of the death of his renowned adversary, at once boldly resumed the offensive. The French army, deprived of the genius which had led it to victory for many years, was soon in full retreat on the Rhine; and having fallen into the hands of incapable chiefs, it was nearly involved in a crushing disaster. The history of war has few more striking instances of what a commander is to his troops than the reverses which, after the fall of Turenne, followed the course of his steady success before it; and the passionate cry of his defeated soldiery, to the worthless men who stood in his place, "Give us Magpie"—the warrior's charger—"to lead us!" is only an exaggeration of a substantial truth. Montecuculi's eulogy on Turenne is well-known; but the offensive return which he made with confidence and victoriously after his great rival's death is a more expressive and a finer epitaph.



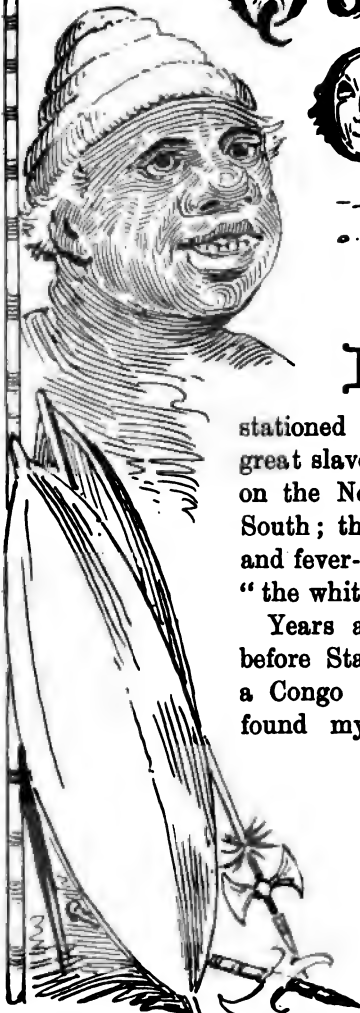
Sorrowing Ilium mourned her mighty shade ; the remains of Turenne were borne to St. Denis, and laid in the tombs of the Kings of France, an honour never again conferred on a subject. They were spared even by the Jacobin hands which violated the royal abodes of death in the madness of Paris in 1793 ; and they now fitly rest beside those of Napoleon. A word on the place of this great man among the masters of the noblest of arts. The peculiar gifts of Turenne were a far-sighted and calm intelligence, sagacity of the finest kind, and admirable constancy and force of character, and these made him one of the first of generals, though he did not possess, in the highest degree, the dazzling imagination, the power of thought and of calculation, and the astonishing energy which distinguish Napoleon and, perhaps, Hannibal. These qualities made him a consummate strategist, few chiefs have ever moved on a theatre of war with the perfect skill and success of Turenne ; few have known how to make grand manœuvres with as certain results, and with equal brilliancy ; and his great wars of marches, replacing sieges, were an inspiration of most striking genius. As for special illustration of his strategic powers, Turenne has been surpassed by Napoleon alone in the art of reaching the communications of a foe, and of operating between separate hostile masses ; and he was safer than Napoleon in these efforts, though he did not accomplish such marvels of war. Considering the state of the art in his time, no chief perhaps has ever achieved more than Turenne by scientific movements ; he triumphed in several campaigns by mere marches without fighting a single battle, and yet his success was complete and decisive, as was specially seen in 1646 and 1675. In fact, strategy made little progress for many years after this great captain ; and yet Turenne did not quite attain the highest rank among modern strategists, for his intellect was somewhat wanting in quickness, and his nature in what is called the sacred fire ; he let grand opportunities slip, and in three great instances, at least, he did not do what probably might have been accomplished by him. These defects—and genius is never perfect—made him a tactician of the second order only ; he had not Condé's inspired thought on the field ; and for a commander of extraordinary gifts, he suffered defeat in many instances. Yet the decision and firmness which were among his qualities stood him in good stead, even in the conduct of troops ; no general has ever known better how to make a bold stand, and to impose on an enemy ; and it was one of his special characteristics that he could overcome defeat, and

that he was most formidable after a reverse of fortune. For the rest, Turenne, like most great captains, had administrative powers of the highest order ; he, usually, even in his long marches, contrived to have his army in good condition ; he remodelled the military organisation of France, and made it by far the best in Europe ; and, as an administrator, he had this distinctive merit—that he was in advance of the ideas of his time. I must add a word on the relations between this illustrious chief and the armies he led. Turenne had a truly chivalrous nature ; he was singularly considerate to his lieutenants, and though he could be stern and severe when needful, he made the largest allowance for mere errors, and never blamed others for shortcomings of his own. No general has ever had more devoted officers ; and this magnanimous character was admired and recognized by every chief who was opposed to him, by Leopold, Montecuculi, and even the arrogant Condé. As for his troops, Turenne was most chary of their blood, resembling Wellington in this respect ; and, like Wellington too—a regimental officer, versed in the details of professional work—Turenne knew their wants and gave much attention to them. As has always happened with real chiefs, Turenne fashioned his soldiers to his own nature ; they were not rapid and vehement in his hands as they were in those of Condé and Villars ; but he made them steady, enduring, bold, but tenacious ; and their phrase, “ our father,” shows how he was beloved by them. Except for one unhappy lapse, the career of Turenne does “ honour to humanity,” to quote the words of his ablest adversary and yet sympathetic friend.





BY COMMANDER G. H. R. ERROLL, R.N.



I WONDER if any of my readers have ever had the ill luck to be stationed on the West Coast of Africa; the great slave coast, extending from Sierra Leone on the North to St. Paul di Loanda on the South; the great lone land of trackless forest and fever-breeding swamps; the land of death, "the white man's grave."

Years ago, before the Ashanti war, long before Stanley had discovered Livingstone, or a Congo Free State had been dreamt of, I found myself a young lieutenant of Her Majesty's gun-vessel *Swallow*, one of the squadron kept in that purgatory for the suppression of the slave trade.

We never caught any slavers; indeed, the rotten old craft was so slow that under the most favourable circumstances we could not get

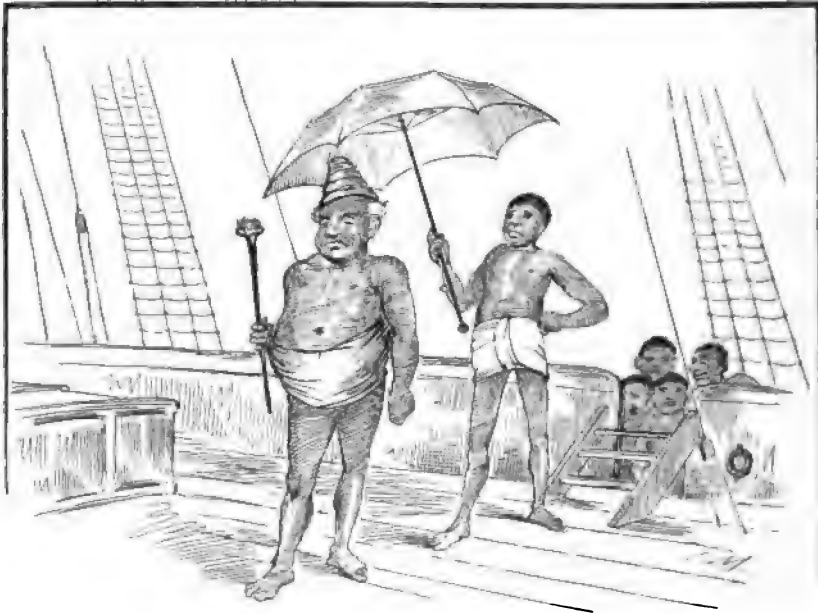
more than eight knots out of her. As all the slavers were perfectly aware of this fact, they carried on their traffic with contemptuous indifference to our presence, knowing that if they only took care to get a good start they could always run away from us.

Our orders were to patrol about 200 miles of the coast. Never shall I forget the hideous monotony of slowly sailing up and down our lonely beat; the roll, roll, roll, continuously on the heavy ocean swell, with the dull thunder of the distant surf ever booming in our ears. Nothing to talk about, nothing to look at except a long, low line of sandy coast, beyond which lay dense masses of black forest, concealing miles upon miles of fetid swamp, where obscene reptiles revelled in the putrescent mud, and from whence a loathsome miasma arose and was wafted to us when the night-breeze blew off shore, settling upon our decks and rigging in a sort of green slimy dew, sickening to touch and poisonous to breathe. We had no occupation except to catch the enormous centipedes, cockroaches, and other disgusting insects with which the ship was overrun. The tropical sun glared down on us by day, the filthy miasma enveloped us by night; nothing disturbed the weary monotony of our lives. A storm would have been a welcome change, but it never came. Occasionally some enterprising natives would paddle off to us with a canoe full of yams, plantains, and cocoanuts, to exchange for empty bottles, old iron, or anything they could get; and these were the only inhabitants we ever saw, until at last an incident did occur, when I got a new sensation with a vengeance, and a glimpse of the manners and customs of the natives of Africa that will satisfy me for the rest of my life.

It was the early morning of Christmas Eve, 18—. The *Swallow* had left her cruising ground for a short time, and was lying at anchor in the mouth of the river Congo, near a salubrious spot bearing the happy appellation of Shark's Point. In those days the Congo had not been explored and mapped out as it is now. The vast volume of muddy water flowed down from a great unknown land, bringing with it strange trees and driftage, and often as I gazed upon its mighty bosom I wondered what mysterious scenes it had passed through. At Shark's Point, or rather at Banana Creek close to, was a sort of fortified trading station, which on that coast is called a factory. It was surrounded by a strong stockade, and inhabited by two Europeans, a half-breed interpreter, and a score or so of negro servants. The Europeans were agents of some Portuguese firm, and exchanged Birmingham cloth, &c., with the natives for ivory and

used to call about twice a year to take away the results. It must have been a very profitable business to pay men for encountering the dreariness of such a life, and the almost certainty of death by fever or violence.

However, to get to my adventure. On this morning I had come on deck at half-past five, turned the hands up and set them to work to wash the decks down. At a little after six I observed three or four canoes coming down the river, each of them containing about half-a-dozen black fellows. In one was seated a white-haired old man who was evidently a person of some distinction, and another negro



HIS MAJESTY ARRIVES ON DECK.

was holding a gaudy, clumsy sort of umbrella over his head. They approached the ship and presently, with a great deal of shouting and gesticulation, came alongside. The white-haired old nigger with great deliberation put on a small conical cap, and with a large staff in his hand endeavoured to ascend the ship's side. But this was a work of some difficulty. He was a very fat old fellow, very slow and awkward in his movements, and evidently unused to ships' ladders. In vain his followers shoved him up behind; they only pushed the canoe away, whilst the dignitary struggled and gasped and nearly fell into the water, exciting great amusement

amongst the seamen, who were watching the proceedings from the hammock nettings. At last, after a great deal of jabber, the old fellow handed his staff to one of his attendants, and then, having both hands free, he contrived to clamber over the side and stood upon the deck; the staff was handed up to him, the umbrella was unfurled over his head, and he looked about with a curious gaze, in which conscious dignity struggled with evident bewilderment.

He could not understand a word we said, nor we him, and his followers vociferated themselves hoarse in some unknown tongue in their endeavours to explain to us what it was all about. He kept on smiling at us in a senile sort of manner, but there, unfortunately, our attempts at intimacy perforce ended. With the exception of the conical cap before mentioned, which I now discovered to be made of fine plaited grass, he had only the cloth round his middle which is the usual costume of the country. But his staff was quite a curiosity. It was a straight stick of some heavy wood, dark like ebony, and elaborately carved. On the top of it was a flat piece of the same wood, about six inches long by three wide, on which was a little group, carved or cast in lead, representing a man shooting a bullock. He evidently attached much importance to this staff, and was much pleased at the attention it attracted.



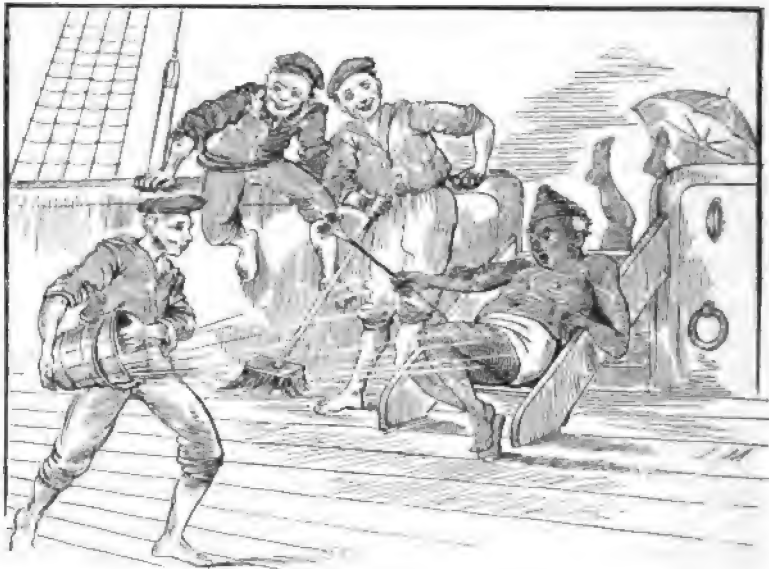
HIS SCEPTRE.

Well, we had no time to spare to look at our visitor, and I had to bustle the men on with their work. Moreover, we paid very little attention to negroes at any time, except to see that they did not steal anything. The sailors used to say it was a shame that white men should be sent to such a filthy, fever-stricken place to prevent a parcel of black niggers being carried into slavery, where, after all, they were much better off than in their own country; and, as might be expected, they treated the natives with very scant courtesy; indeed, they were much more likely to get a crack with a broomstick than anything else. So the old black fellow was soon hustled on one side, and the washing down the decks proceeded with.

I had walked a short distance from the gangway when I heard one of the men say "Out of the way, you black lubber!" a slush of water and a yell. Turning quickly round, I saw a most badly behaved foretopman in the act of throwing a bucket of water at our visitor. The effect was prodigious. The old

startled, he tumbled right over backwards; the umbrella-bearer went into the canoe head first, umbrella and all; and the faces of the other niggers, which had been grinning over the ship's side, disappeared like magic, whilst a most awful yelling and hubbub arose from the canoes alongside. Presently the old fellow picked himself up, and with wonderful alacrity tumbled down into his boat, which then pushed off, and, accompanied by the others, paddled furiously away up the river, and disappeared in the direction from whence they came.

Of course I was very much annoyed; but, after all, it would not hurt much—the old gentleman had no clothes to spoil; so



"OUT OF THE WAY, YOU BLACK LUBBER "

I reproved the sailor for his unmannerly conduct, and after laughing somewhat over the ridiculous appearance the niggers had presented, I dismissed the whole incident from my mind as a matter of no importance. The decks were soon finished. The ship's company had their breakfasts, and dressed themselves in their white suits, and the routine for the day went on as usual.

Towards evening a boat came alongside, bringing the two Europeans from the factory. They were in a great state of agitation, begging to see Captain Doyle at once. I ushered them down to the cabin, where I found the skipper smoking his cigar, and after the usual salutations they proceeded to unburden their

minds in a peculiar mixture of Portuguese and English, which I will not attempt to reproduce here.

The pith of their story was this : that our visitor of the morning was a certain powerful chieftain in those parts, known as King Mamelaw ; that he had come to see what a man-of-war was like, and to pay a visit of ceremony to the English captain ; that, unfortunately, he had been knocked down by the sailors, deluged with water, and treated altogether in a most contemptuous manner ; that King Mamelaw was not a person who could be trifled with with impunity, and that, as he regarded all white men as belonging more or less to the same nation, as soon as the man-of-war had departed, he would most probably come down in force, cut the throats of the unfortunates in the factory, and confiscate all their goods, on which he had long been supposed to have cast covetous eyes. To sum it all up, they were in a terrible fright, and begged that, as we were the aggressors, we would take some steps to avert the dangers which threatened them.

"What course do you recommend ?" said Captain Doyle.

They suggested that the captain should return King Mamelaw's visit in full uniform, and make him a present of a full-dress coat and a cask of rum, whereby they thought the King's wrath would be mollified.

Now Captain Doyle was a very lazy man, and exceedingly adverse to inconveniencing himself for anybody, so he made answer that "He didn't care a button if King Mumbo Jumbo, or whatever his name was, killed the whole lot of them. He'd be hanged if he'd put on a full-dress coat with the thermometer at 93° in the shade to save anybody's throat, except his own. There's Block," he said : "he was on deck at the time it happened, and ought to have prevented it. Ask him to go."

Well, the unfortunate Portuguese, finding the captain would not budge, seized eagerly on his lieutenant ; and the upshot of it all was that I consented to go the following morning and personate the captain ; that they were to provide suitable presents and an interpreter, and, as the captain would not allow the seamen to be disturbed on Christmas Day, they were also to lend me their boat and boat's crew. This being arranged our visitors departed, saying the boat with the interpreter, &c., would call alongside for me the first thing in the morning. Then I went off to rout out my cocked hat and epaulettes, and to reflect upon the delicate diplomatic mission I had volunteered to undertake.

The more I thought of it, the less I liked it. It appeared to me



that it was very much like putting one's head in the lion's jaws. Here was I going all alone (for the little half-breed interpreter counted for nothing), to put myself in the power of a notorious savage infuriated by recent insult; a ruffian who, as likely as not, would cut my throat for the sake of the coat I had on. It was very little consolation to me to know that an expedition would certainly be sent to avenge my death, and that England would be committed to another little war on my account.

However, it was now too late to draw back, so the best thing was to put a cheerful face on it. Also I had to respond to the encouraging chaff of my messmates, who, after kindly suggesting I should make my will, proceeded to try on most of my things with a view to their acquisition after my decease; and at last, as a brilliant idea, it was suggested I might just as well distribute all my belongings amongst them at once as I should certainly never require them again. I was thinking "There is many a true word spoken in jest," when the surgeon, a hair-brained Irishman, to my delight and everybody's surprise, suddenly announced his intention of accompanying me.

"I'd like to see something of these black devils," he said; "an' sure anything's better than this d——d monotony, day after day. Begorra I'll go too, if the skipper will give me leave."

You may be sure I felt an immense feeling of relief when the required permission was obtained, and I found I was to have such a pleasant companion as Jack Flanagan. The danger did not seem half so appalling now that there were two of us to share it.

It was not considered necessary for Flanagan to apparel himself so gorgeously as I had to do, so he appeared next morning in a shooting coat and sun helmet. About 5 A.M. the boat from the factory came alongside, pulled by eight stout negroes, with another to steer. We went down into her; our blankets and provisions were handed in, and then the order was given to shove off on our hazardous journey.

We found the interpreter in the boat, a poor little wizened crea-



ture, in a great state of trepidation at the mission he had most unwillingly been obliged to undertake. He entertained us most of the way with stories of the atrocities committed by various royal and distinguished personages in the neighbourhood, and gave us a very fair idea of what we might expect if King Mamelaw was in a bad humour. He said, however, that the King had, on the whole, a reputation for good nature. We had brought good presents, and the captain (I had brevet rank for the occasion) was a truly splendid and awe-inspiring spectacle; and, therefore, he hoped we should come out of it all right.

The valuable and magnificent presents, by the way, consisted of about twenty yards of brilliant flaming chintz, such as you may

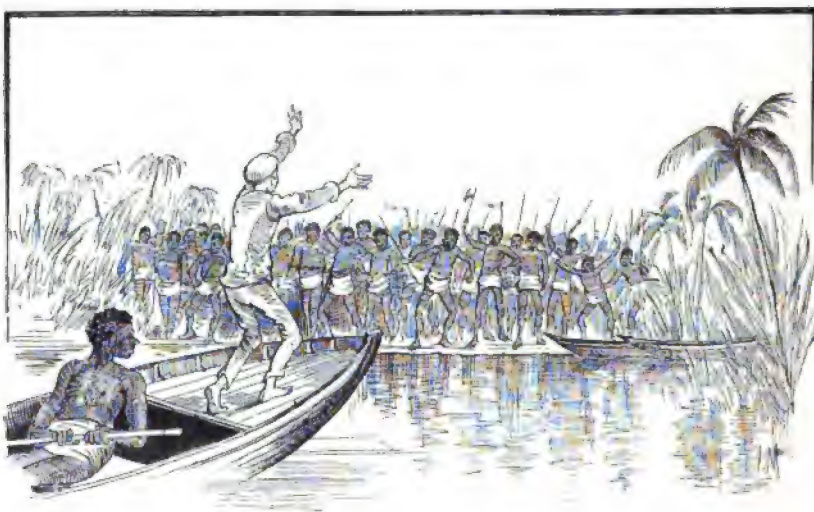


buy at Whiteley's at sixpence a yard, but calculated to entrance the heart of any savage; a Brumagem flint-lock musket, with a bag of gunpowder and another of bullets; a few clasp-knives, a bag of nails, and last, but not least, a small keg of very fiery and very poisonous rum.

With these articles carefully stowed in the bottom of the boat, we pulled away up that magnificent river. The current ran strong, and though our crew laboured lustily at their oars, we could not make very rapid progress against it, and occasionally I had to stop and make fast to a snag or root to rest the men. After rowing about twenty miles, we left the main stream and proceeded up a creek or tributary. Here we got along much more quickly, as the water seemed almost still. Dense forest lined

banks; countless monkeys peered at us from amongst the branches, whilst flocks of grey parrots, bearing a wonderful resemblance to wood-pigeons, flew screeching over our heads. Otherwise, there was no variation to the endless trees and black silent water; and the effect was depressing in the extreme.

We proceeded up this creek for about twelve miles, when the interpreter, who knew the way, informed us we were nearing our destination. Presently we turned a corner and discovered a landing-place, or gap, in the jungle. Here several canoes were drawn up, and on shore was a crowd of natives yelling and gesticulating like fiends. They grew quite frantic as we approached. Not knowing what their intentions might be, I lay-to a little

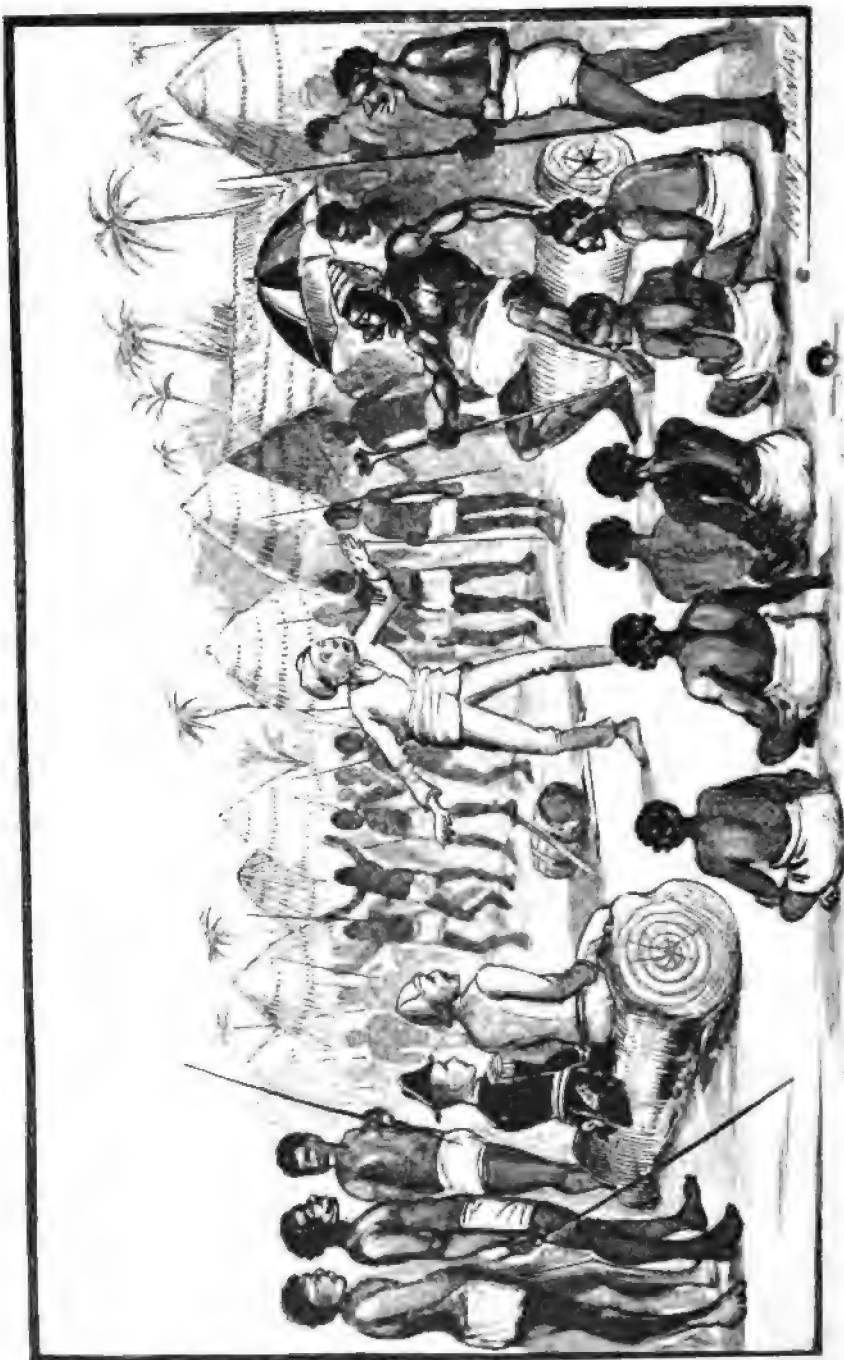


way from the bank, and told the interpreter to inform them that a very great white king was in the boat, who had brought presents and wished to see King Mamelaw. The little half-breed thereupon got up in the bows and made them a long speech accompanied by much gesticulation, at the conclusion of which several men set off running inland, whilst the rest danced and shouted more frantically than ever.

After about a quarter of an hour the runners returned, and announced that King Mamelaw would see us forthwith. So, with our hearts in our boots, but great outward dignity, Flanagan and I stepped ashore into the midst of the yelling concourse; the presents were handed out, and the boat ordered to lay off at anchor

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THE AUDIENCE.

and await our return. Volunteers from amongst the crowd were found to carry the articles; and then, preceded by the interpreter, and escorted by the whole yelling, jostling, sweating, stinking pack, we set off on our journey into the great unknown.

It was about three o'clock in the afternoon, and the sun was insufferably hot. Our footsteps were hindered by the coarse matted jungle grass and tangled roots; also the crowd, which was rapidly becoming greater, pressed about us so unceremoniously that several times we were nearly thrown down. Presently we passed through a belt of jungle into a large clearing, where a number of huts were clustered together. As we approached this town our followers set up a great shouting, which brought all the remainder of the inhabitants out to meet us. They were mostly dressed in the usual costume, already described, although many in their haste had forgotten even that, and a crowd of more repulsive looking objects I never saw. If the men were ugly enough, at least they had the advantage of being fine athletic-looking animals, but the women were too awful. But here I think I had better be discreet, and spare my readers a description of a Congo belle. Well, we were carried along in the midst of this unmannerly crew until we arrived in the centre of the town, where there stood a larger and more important looking hut than the others, with about half an acre of clear ground in front of it. Near the centre of this space a log had already been placed for us to sit upon, and to this we were conducted. Several men then began to shout and beat back the people, until they made a ring, of which we were the centre. Notwithstanding, they behaved like a pack of wild black devils; their clamour was absolutely appalling, and the yelling, dancing, gesticulating, dust and heat was something quite indescribable.

After waiting about five minutes, a lane was made through the crowd in the direction of the big hut, and presently down this lane advanced the identical white-haired old nigger who had been so ill received on board the *Swallow* the previous day. He wore his conical cap, the quaint staff was in his hand, and the gaudy umbrella was held over his head. He was accompanied by an escort of several big negroes and a score or so of women, who I suppose were his wives. You may be sure I scanned his countenance with considerable anxiety, and was much relieved to see he was in an excellent humour, and evidently much pleased with the importance and ceremony of the occasion. We stood up and bowed with much solemnity as he approached, which he returned

with a sort of good-humoured nod, and then tottered to another tree trunk, where he sat down facing us. The women grouped themselves behind him, and the remainder of his subjects formed an admiring throng around us.

I then stood forward and made a speech, through the interpreter, to the effect that I came from Queen Victoria to see King Mame-law, and I hoped his Majesty was pretty well ; to which he assented. I then paid him a lot of grandiloquent compliments, carefully avoiding any allusion to the *contretemps* of yesterday, and ended up by displaying the presents. The gun, nails, and knives were received with satisfaction ; but when the interpreter unrolled the magnificent chintz, there was a perfect outburst of acclamation from the spectators. Finally, I presented the *bon-bouche*, the keg of rum, amidst roars of applause. The bung was soon knocked out, and the king put his dirty finger into the hole, then drew it out and sucked it. As the fiery liquor tickled his palate, he gave a huge fat smile of satisfaction, and the joy of his people knew no bounds. Then he passed the keg to his wives, two of whom carefully carried it off into the big hut.

He sat there and beamed at us for a time. Then he mumbled something which the interpreter translated into " He say muchee pleasy see Queen Victoria." Whether he thought it was my name or not I cannot say, but no doubt the natives of those parts will always be convinced that Queen Victoria did visit their village in person, and that, moreover, she wore a tailed coat, trousers, and a cocked hat.

The king, after another long pause, took notice of my sword, asking to see it. I drew it from its sheath and handed it to him, and as it happened to be new and bright it flashed gaily in the sun, and the crowd shouted with admiration. The old man took a great fancy to it, asking me to give it to him ; seeing I hesitated, he offered me his curious staff in exchange. The little interpreter begged me to let him have it, but Flanagan and I had begun to get foolhardy by this time, and looked on the whole affair more as an amusing lark than a serious situation which might at any moment turn to tragedy ; so, as a sword is an expensive article to replace, I declined the offer. The king looked offended, and rather curtly handed me back the unfortunate weapon ; then he arose, and pointing to a hut behind us, said we could stay there until we wished to go, and that some presents would be sent to us. With this, he turned on his heel and waddled off to his own hut, to solace his wounded feelings, no doubt, with the rum.


The audience then broke up, and we were glad to get into our hut out of the crowd and heat. They did not give us much peace, however; the doorways, back and front, were crammed with woolly heads, whilst hundreds of eager eyes peered at us through every crack and knot-hole in the wooden walls. The atmosphere was stifling, and, as there were no seats, we had to squat as best we could on the mud floor.

It was getting on for five o'clock, and I was becoming anxious to start back, so as to get as far down the creek as we could before dark came on, which it does soon after six in those latitudes; but the presents mentioned by the King had not yet arrived, and we considered it would be rather a contemptuous proceeding to leave without them. We were just making up our minds to send a message to him to say we wished to depart, when a most extraordinary hullabaloo arose outside. In an instant we found ourselves deserted for the new attraction, so we went and stood in the doorway to see what the excitement was about.

All the people were shouting and running in one direction towards the outskirts of the town, and from thence we shortly saw the crowd returning, seething round some object in their midst, which we presently discovered to be a prisoner. They were madly excited, and dancing like fiends, for they knew, though we did not, the bloody spectacle with which they were about to be regaled.

The wretched captive was being dragged along by three or four stout negroes, and looked almost pale with terror. They brought him into the open space in front of us, and forced him on his knees in a crouching posture, whilst several of the crowd ran to the king's house and began hammering on the doors and walls to summon their monarch to the judgment-seat. We endeavoured to ascertain what crime the unfortunate creature was charged with, but all the interpreter could tell us was "He witch; he makey die somebody"; and he evinced the strongest desire to return at once to our boat; indeed, I think he would have bolted if he had not been too much afraid to traverse the intervening distance without our protection.

Presently King Mamelaw appeared, and I could see at once that he had been at the rum cask: his face had assumed a sullen, angry expression, his eyes were fiery, he staggered more than ever, and was evidently already very drunk. We intuitively recognized the fact that he was rapidly approaching a stage when the desire to possess himself of the coveted sword would outweigh the fear of

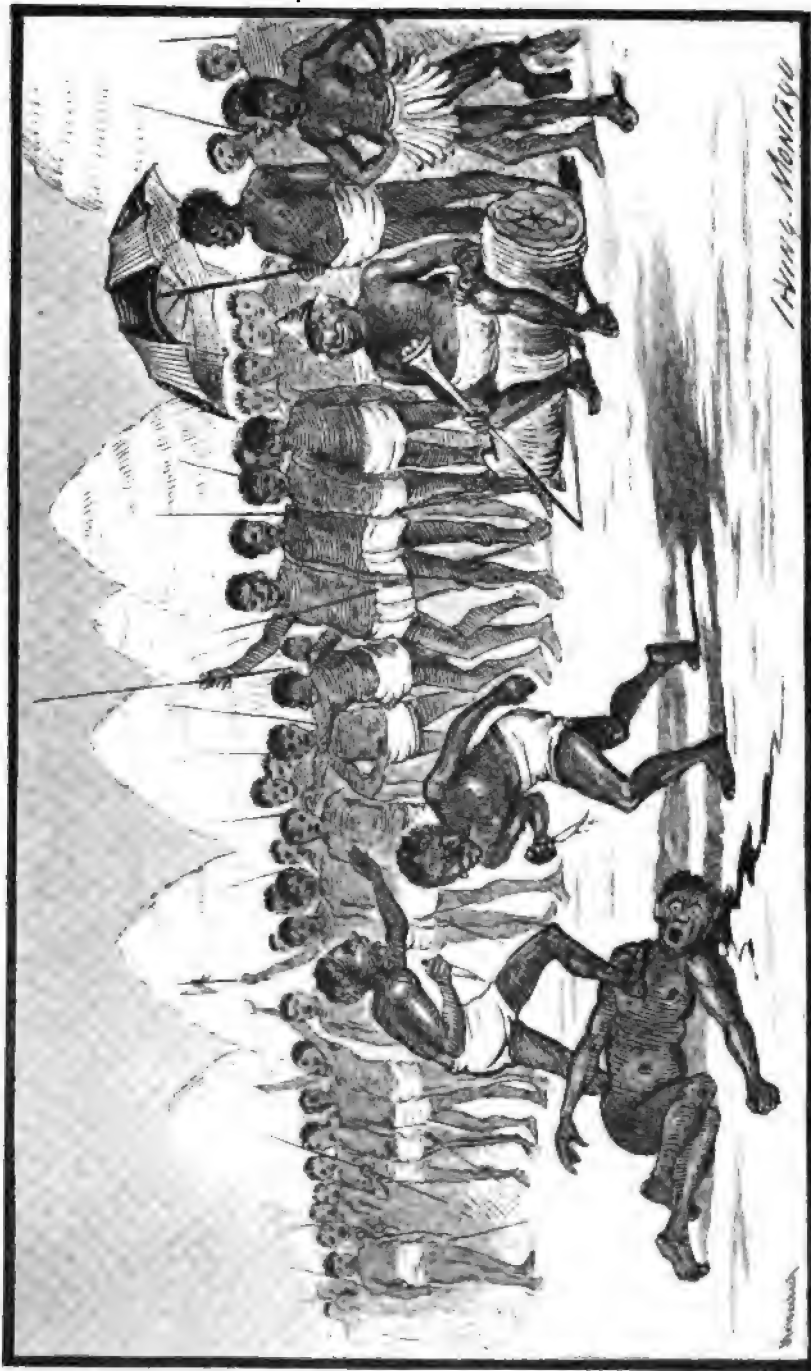


any future reprisals, and we withdrew inside our hut to keep out of his sight.

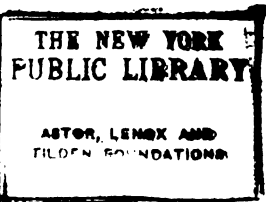
The king was accompanied by his escort, and seated himself on his log as before, while two hideous negroes stationed themselves one on either side of the doomed man ; the crowd drew back a bit, and through the chinks of our retreat we could see everything that was taking place. A comparative silence ensued, broken only by a piteous howling from the miserable captive, which I suppose was a prayer for mercy. The whole scene hardly lasted a minute. The king glared in a drunken fury at the grovelling wretch at his feet, and then, with an angry exclamation, struck at him with his staff. Instantly the negro on the left placed his foot on the nape of the man's neck, forcing his shoulders to the ground, whilst the other one drew a knife from his waist-cloth, dragged the poor wretch's head back by the wool, and cut his throat from ear to ear. Never shall I forget that hideous sight. Never can I forget the sickening feeling of horror which overwhelmed me. I still seem to hear the dreadful, blood-curdling, choking cry of the wretched victim as that cruel knife nearly severed his head from his body.

The awful deed took place so quickly, so unexpectedly, we were so unprepared for anything serious happening, that at first it seemed impossible, unreal—a hideous dream. Then came a dreadful sense of nausea and horror, so that I thought I should have fainted. I must have looked very bad, for Flanagan gripped me by the arm, and in a hoarse whisper, said, “Rouse up, Block. For God's sake, don't faint! We must get out of this at once.” His face was as white as this paper; but I suppose, being a surgeon, his nerves were stronger than mine.

We looked through the chink again. The people were dancing like devils possessed, the women the worst of the lot, and were evidently getting ripe for any atrocity. The murdered man was wallowing in his blood, flinging his limbs about in hideous convulsions, his eyes starting from his head, and his features contorted in a manner awful to behold. It was a most shocking spectacle. I felt our lives were not worth five minutes' purchase. Luckily Flanagan had his wits about him. Drawing a flask from his pocket he gave me a strong nip of brandy, taking another himself: then we crept cautiously from the back entrance of our hut. Luckily the people had all gathered together to the sanguinary spectacle, not a soul seemed to be left in the houses. We kept most carefully behind the buildings, and with the assistance of the



THE EXECUTION.



clever little interpreter soon found ourselves on the path by which we had entered. Here we all three set off running as hard as we could, and as there was not more than about a quarter of a mile to get over, we soon hove in sight of the landing-place. There were a few natives there, who set up a hubbub, and seemed inclined to oppose our departure; but luckily our boat's crew saw us running, and thinking something might be wrong pulled in to our assistance, and in two minutes more I found myself in the sternsheets of that blessed boat, being rowed down the creek as if the devil himself were after us.

We had pulled hard for about an hour, when darkness overtook us. By this time we were out of reach of pursuit, even if there had been any, which we judged was unlikely, firstly, because the King was too drunk to give any coherent orders, and secondly, because the natives have been taught the lesson that any interference with boats or ships is certain to be severely punished; so we divided our crew into two watches, letting one half sleep whilst the other half rowed, and in this way we paddled down the river all night, the current of course assisting us.

I confess I did not sleep much myself, as whenever I closed my eyes the spectacle of that poor wretch writhing in his blood came before me so vividly that I was glad to reopen them and find myself safe out of the realms of King Mamelaw.

We reached the *Swallow* soon after daylight, and found Captain Doyle on deck. He confessed he was getting a little uneasy about us.

"Upon my word, Block," he said, when I had related our adventures, "I'm very glad to see you safe back again."

"Thank you, Sir; you're very kind," I returned, pleasantly surprised that Doyle should show so much consideration.

"Ah, yes," he replied coolly. "It isn't that I mean, but I was thinking what a beastly row I'd have got into if that black devil had cut your throat instead of the other fellow's."

The *Swallow* left the river Congo, and the West Coast station also, soon after; and I have never heard anything more of our Portuguese friends at Banana Creek, or whether anything further came of my Christmas Day with King Mamelaw.



Naval Warfare:

ITS PRINCIPLES AND PRACTICE HISTORICALLY TREATED.

By REAR-ADMIRAL P. H. COLOMB.

CHAPTER VI.

ATTEMPTS TO GAIN THE COMMAND OF THE SEA WITH DEFINITE ULTERIOR PURPOSE.

There is a difference between attempting to gain the command of the sea as an end, and as a means for achieving some ulterior purpose.—The best examples are the Dutch wars on one side, and the various attempts of France to invade England on the other.—But invasions are at least rarely planned in the absence of command of the sea, unless help is hoped for within the country to be invaded.—The transactions of 1690 show that partial command of the sea will not permit invasion, and that a partially beaten fleet is still to be reckoned with in such operations.—The transactions of 1692 show the difficulties of the attempts, and of the great risks that are run in seeking for a temporary command of the sea.



HERE being no example of the attempt to secure the command of the sea as an end so complete as that of the Anglo-Dutch wars, I traced pretty fully their history, and drew special attention to the methods employed on both sides. It is important to remember that in these wars there was no ulterior object in the aims either of Dutch or English. Both nations depended largely on sea-borne commerce for their prosperity, and if one nation should succeed in obtaining such a command of the sea as would enable it to control the commerce of the other, the latter would certainly be brought to her knees. Holland was so well aware of this, that in the second and third wars she felt it necessary to temporarily suspend her commerce, in order the more freely to contend for the direct command of the sea, or at least to prevent England from obtaining such a command as might give her a permanent control over the Dutch commerce. Her policy was so far successful that she did prevent the command of the sea being thoroughly gained against her, and shortened the wars by the firm and resisting front which she was ever able to show.

But we have seen that both nations were desirous of pushing

the war off the sea, whenever even temporary command of it promised to permit the attempt. Troops were embarked at different times by both nations, and were actually landed by the Dutch when a mistaken policy on the English part allowed the Dutch sufficient command of the sea to undertake it. It is true that on neither side of the North Sea did the idea of operations on land extend beyond harrying, alarming, and destroying, within the immediate neighbourhood of the coast. But supposing the command of the sea had been absolutely in the hands of one side, and that that did not suffice to obtain the terms demanded, it is conceivable that the side in power might have aimed at more permanent occupation of the enemy's territory, resting on the sea base for supplies. If the population of one nation had been greatly in excess of the other, and its land forces proportionately stronger, the ultimate aim of this nation might have been a military expedition. Conquest of territory might have been the aim of the war, and the command of the sea might have been looked at not as the end, but only as the means to an end. Conceivably, if the military power were immensely greater on one side than on the other, the more powerful nation might hope to end the war by that sort of sudden conquest, which, when undertaken on a large scale, is called invasion, and this without much care as to the permanent command of the sea. The attempt might even go further; the idea might be that the greatness of the force, and the suddenness of its landing, might achieve conquest, and conclude the war with such speed as to render sea communications unnecessary and therefore to leave out of question the command of the sea even for a time, the invasion being conducted by way of surprise or evasion.

There are not wanting examples of this kind of operation, or attempted operation. The Spanish Armada, Hoche's expedition to Bantry, Napoleon's invasion of Egypt, and the Italian attack on the Island of Lissa are all cases in point, though not encouraging in their results, as to that particular method of conducting war. I shall have to treat of these and other operations of like nature in subsequent chapters, but I only advert to them to make clear the distinction which exists between that form of operation and the one of which I am about to treat. This is the case where the naval and the military operations are separate, and where a purely naval war, however short it may be, is carried on simply to clear the way for the military operation which is to follow.

The operation is nearer akin to that which will al-

be investigated, where a power having already the command of the sea, and intending a military expedition for the success of which command of the sea is necessary, sets apart a naval force to mask the naval force of the enemy, and, therefore, to make assurance doubly sure.

There are no more perfect illustrations of the operations I have in view than the several great endeavours of France to secure the command of the sea, in order to pass across the Channel a military force large enough to effect the conquest of the country before sufficient time had elapsed to change again the face of the naval supremacy.

But I think it should be observed that in every case of invasion, either of this kind or of the kind above spoken of, the invading power hoped for assistance in the country invaded. In one case, that of the invasion of the Prince of Orange, the certainty of help in the invaded country was so complete, and the doubt of possible naval opposition so marked, that we must almost leave it out of any class of naval operations possible to be formed. The balance of political opinion, far more than of force, either naval or military, determined the conduct of the design. But it may be taken as the extreme type of invasion, and as differing from other invasions more in degree than in kind. In every one of the French attempts on England, France believed that the landing of her troops would be the signal for insurrections in her favour all over the country, and of a great rallying to her standard of a disaffected population. In her attempts on Ireland, it was the same. In the case of Spain, Philip was confident that a vast body of oppressed Catholics would support him as soon as his troops disembarked, and was only depending on that help coming to him on a large scale which in the landing at Kinsale his troops received on a small scale. Even in Egypt and the East the fanaticism of the French led them to suppose they would be received as friends and deliverers, and would find a home and a base for further operations against the English possessions in the East, even in the very probable contingency of being cut off from France.

Certainly this view, that the French troops, if they succeeded in landing on the English shores, would be sufficiently supported by the people to effect the intended purpose of restoring James to his throne, completely governed the operations which led to the abortive battle of Beachy Head.

A considerable French force had been landed in Ireland, and the ex-king James had gained such power there that large forces

had departed from England to make head against him, William himself quitting the country on the 11th June 1690 to take the head of his army in Ireland. England itself was, therefore, left to the government of Mary as Regent, and to a military defence of which the chief strength was a hastily called-out militia. The naval defence was so backward, and so much delayed, that Lord Torrington, then Admiral Herbert, who had escorted King William to Torbay, had resigned his office at the Admiralty sooner than be a party to the unpreparedness for events by sea which was then the uppermost policy.* Nottingham, the Secretary of State and Torrington's enemy, was able to overrule prudent counsels, and by despising the French as an enemy at sea, really left the country open to grave dangers.

The French were no doubt well informed, through James's partisans, of the opportunity that was opening to them. They had a full belief that, in the absence of William and the English army in Ireland, a success in the Channel which would enable them to carry a small military force across would bring about a general rising and restore the ex-King. Indeed, arrangements had gone so far as to fix the 18th of June as the date for the outbreak of the insurrection.

The French intention was then to appear in the Channel in greatly superior force to any that the English and Dutch were likely to produce. A part of the fleet was to make for the Thames to support the Jacobite rising in the capital; while the other part was to join the galleys, and land 8,000 men in Torbay with arms for a much greater number. After so landing them, this part of the fleet was to sail into the Irish Sea and prevent the return of King William and his troops.†

The main body of the French assembled at Brest under the command of Vice-Admiral Comte de Tourville, and the ships at Toulon under the orders of Vice-Admiral Châteaurenault were ordered to join him.

* "Lest any of these matters should be laid to my charge, I think it necessary to acquaint this honourable court that not seeing matters so well in the Admiralty as I thought the service required, and that it was not in my power to prevent it, I humbly begged and obtained the King's leave to be dismissed from that commission and giving any further attendance at that Board; that since I could not prevent the mischief, I might have no share in the blame." Torrington's defence, quoted by Entick, p. 548. His quitting of the Board, and being succeeded by the Earl of Pembroke, took place January 20th, 1689, according to Schomberg's *Naval Chronology*, vol. v., p. 191, but this must be a mistake for 1790.

† Lediard, vol. ii., p. 634.

On the English side, the fitting out of a suitable fleet was not only delayed but postponed; but some slight comprehension of the danger was shown in the orders which had been given to Vice-Admiral Killigrew in the early spring. This officer sailed from Torbay with a squadron and convoy for the Mediterranean on the 7th of March, making first for Cadiz. He had with him one second-rate, four third-rates, seven fourth-rates, one fifth-rate, and two fire-ships, besides apparently four Dutch ships, two of which unfortunately foundered on the way out. According to the reckoning of those days, this gave Killigrew, when he sailed, sixteen ships "fit to lie in a line." His orders were to proceed to Cadiz, and then to forward the trade to its different destinations up the Mediterranean; and then with the remainder of his squadron, which would be seven ships and the Dutch, to watch the motions of the Toulon fleet, and if it passed the Straits of Gibraltar westward, he was to follow it.

He was much delayed in every way; took the usual month, which a century later was still the usual month, to reach Cadiz, but there was considerably hampered by the hindrances placed in his way by the Spanish authorities. He was still there with most of his ships on the 9th of May when expresses reached him from several quarters that the Toulon fleet of ten sail, three of them carrying 80 guns each, had been seen off Alicante, Malaga, and Gibraltar successively. Killigrew sailed next morning for Gibraltar where he not only picked up the rest of his ships, but heard that fourteen ships, presumably the French squadron, had been seen at anchor in the Bay of Tetuan near Ceuta, and just opposite Gibraltar, the night before. He at once made for this point, having with him ten sail of English, "fit to lie in a line," beside two fifth-rates and two fire-ships, as well as five Dutch ships.

None of the French fleet were found at anchor, but in a short time they were all seen to the northward, and sail was made in chase. The French and English historians have squabbled a good deal over whether either side was willing or unwilling for an encounter. Presumably, Châteaurenault would have shown a singular want of sense had he courted a battle, which might have prevented that great concentration of force which he was about to complete at Brest. Anyhow, there was no action. The French passed the Straits, and Killigrew, having apparently little comprehension of the French strategy, or of the possibly momentous results of his delay, proceeded to Cadiz, and busied himself in arranging for convoys and such like matters of inferior import.

He had been ordered to follow the French if they passed the Straits; he certainly obeyed his orders, but so leisurely that when he reached Plymouth Sound, after the 30th of June, it was only to learn that Torrington had been beaten, that the French were in command, though not in undisputed command, of the Channel, and that it behoved him to get his very inferior force right up into Hamoaze, and out of harm's way, with as little delay as might be.

Beside the main force of the English and Dutch, slowly—very slowly—assembling at St. Helens, and this force of Killigrew's, which I have traced out and home, the only other English force of importance was that under Sir Cloudesley Shovel, which, however, had only amounted to six men-of-war under his immediate command when De Tourville's preparations were complete.*

As to the main fleet, I have already spoken of its delay. As to the facts of this delay, there is but little doubt. As to the causes they seem to have been a point for bitter argument between the navy and the politicians. Torrington's defence makes it quite clear that he had been urging all through the winter the necessity of hastening and increasing the preparations, and had been as steadily withstood by the Earl of Nottingham. "I appeal to him," said the prisoner on his trial, "whether I did not tell him, when I had urged many reasons for strengthening our fleet, which he only answered with, 'You will be strong enough for the French,' 'My Lord, I know my business, and will do my best with what I have; but pray remember it is not my fault that the fleet is no stronger. I own I am afraid now, in winter, whilst the danger may be remedied; and you will be afraid in summer, when it is past remedy.'"+ Burnett accuses Torrington of being "a man of pleasure," and that he delayed joining the fleet. It seems impossible that this can be true, for Torrington in his defence expressly charges some of the wrongdoings on the fact that he did not join the fleet till the 30th May.† As the court-martial honourably acquitted Lord Torrington, and as the King made it extremely hard for all who had defended him, it seems pretty clear what the navy of the day thought about it all, and what view the politicians took.

However, the result of all was that on the 23rd June 1690

* Ships at Plymouth are also mentioned, but I have no account of their number or force.

† Entick, p. 548.

‡ Burnett, however, had but a hazy notion of anything that took place. He evidently thinks our ships assembled at Plymouth, whereas they assembled in the Downs, and Torrington found them there. See *Memoirs of Lord Torrington* (then Captain Byng, in command of the *Hope*, 70), p. 48. Torrington in his defence states that his orders were not signed till the 26th May. Entick, p. 550.

Torrington found himself at St. Helen's at the head of no more than 50 men-of-war and 20 fire-ships in the face of a sudden announcement that the French, 120 strong, were at the back of the Isle of Wight.

The Comte de Tourville at Brest, being joined by the Toulon fleet which Killigrew had failed to follow, found himself at the head of 70 ships fit for the line, 5 frigates, 16 fire-ship, and 15 galleys. He was totally unwatched, as one of the clever things the Regency had done, and for which it blamed its subordinate, the Commander-in-Chief, was absolutely and entirely to omit the making of any attempt to gain intelligence. Not a cruiser watched the port of Brest, not a cutter even guarded the approaches to the Channel.

"All very well," said Torrington, "to blame me for this."

Some think that in some measure I am chargeable with it. Surely they do not mean before I came to the fleet, which was not till the 30th of May! And from that time forward we had always ships at sea, not only as scouts, but some ever upon the coast of France. It is said, we had no scouts out when the French appeared, and it is very true; nor is it my fault. For all our ships' boats being employed to fetch the Earl of Pembroke's regiment, I desired the Dutch, who had the outguard, to take that care upon them; and it seems those that Vice-Admiral Callemberg had appointed for that service delayed it, to take in some necessaries at the Isle of Wight. And it is certain that the first notice I had of the French was by the appearance of five of their scouts.

I thought, and still think, that the material intelligence is the strength of an enemy's preparation and how that is to be employed. If we had any such intelligence it has been concealed from me; for the first notice I had of Monsieur de Chatteau Renaut's joining the French fleet, was the sight of his flag flying off the Isle of Wight.*

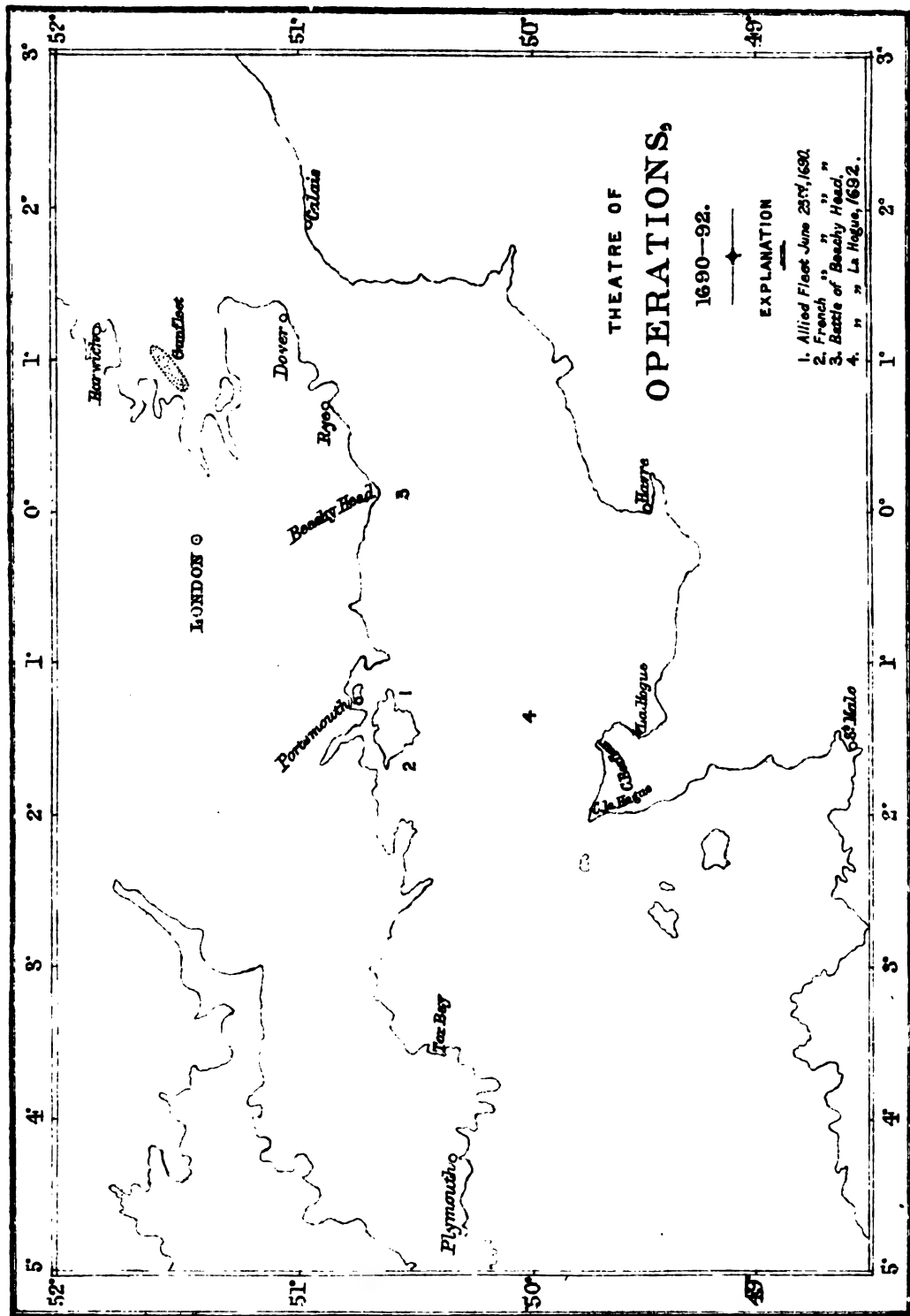
Châteaurenault, as we have seen, had been able to evade Killigrew, who had not followed him up as he should have done, and he had consequently been able to form his junction with de Tourville unnoticed and unmolested.† The Comte de Tourville consequently was able to sail from Brest on the 13th June at the head of the force mentioned,‡ and he proceeded at once for the Isle of Wight.

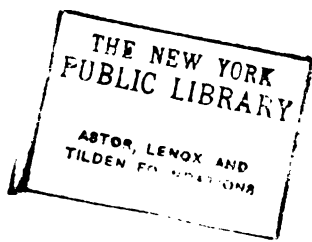
* Entick, p. 548.

† One of the reasons given why Killigrew was unable to bring him to action was the foulness of his ships' bottoms. They had been seventeen months "off the ground," whereas the Frenchmen were just out of Toulon "clean."

‡ In reference to the last chapter, it may be useful to give the exact force of the ships in the line:—

110 guns -	-	-	1	74 guns -	-	-	2	58 guns -	-	-	6
104 „ -	-	-	1	72 „ -	-	-	1	56 „ -	-	-	1
90 „ -	-	-	2	70 „ -	-	-	1	54 „ -	-	-	3
86 „ -	-	-	2	68 „ -	-	-	5	52 „ -	-	-	3
84 „ -	-	-	2	66 „ -	-	-	1	50 „ -	-	-	2
80 „ -	-	-	7	64 „ -	-	-	1	44 „ -	-	-	1
76 „ -	-	-	2	62 „ -	-	-	9	40 „ -	-	-	1
				60 „ -	-	-	11				





However startling it may have been for an admiral lying at St. Helen's to learn, after hardly any warning, that an enemy's fleet of 120 sail, twice his strength at least, was quietly at anchor in Freshwater Bay, Lord Torrington does not seem to have lost his head for a moment. A profound strategist as well as a most experienced seaman, he saw exactly how the land lay, and at once proposed to make the best of the very bad job which the neglect of his advice and warnings had led up to. He had had on the 22nd of June his earliest intimation that the French had put to sea for the eastward; and now, at 8 o'clock in the morning on this 23rd, he received the astounding intelligence above noted. He at once weighed, but the wind was so light as to leave his fleet chiefly at the mercy of the tides, and being no further than off Dunose he wrote to Lord Nottingham:—

We sailed this morning, but the wind taking us short we are not far from Dunose. If the French have continued their station, we are not above five leagues asunder. Our fleet consists of 50 men-of-war, and 20 fire-ships; the odds are great, and you know it is not my fault. To-morrow will probably be the deciding day. Let them tremble at the consequence whose fault it was the fleet is no stronger; for my part, I will, with God Almighty's help, do my duty, and I hope everybody here will do so too. If we are to expect any more Dutch, I hope they will be hastened to us; it is not impossible they may come time enough for a share, because the sea is subject to accidents. We have as yet but 18 Dutch with us, after all De Witt's great promises.

The lightness of the wind compelled the Admiral to anchor for the night off Dunose, and next day was reinforced by three Dutch and two English men-of-war. At daylight on the 25th Torrington weighed with his 55 sail to a light N.E. wind, and with the intention of bringing the French to battle if possible, but it became so thick that he had to anchor again; but presently, the wind shifting to the S.W., it cleared, and then he saw the French about twelve miles to the S.W., in a line on the port tack, standing, that is, to the W.N.W. Torrington weighed, and forming his line stood to the S.S.E. on the starboard tack, the French thus growing more and more on their starboard beam as they advanced; being also to windward, and having therefore full opportunity of bringing on a general action, which their undoubtedly great superiority of force justified, nay urged, them in doing. I need not particularize in this place the movements of the respective fleets, beyond establishing the point, distinctly stated by Lord Torrington, that the French might have brought him to action on this 25th of June,

Showing that though the necessary differentiation of force was approaching, the French idea was yet a long way from understanding what a "line-of-battle" ship really meant.
—See O. Troude, vol. i. p. 198.

and did not.* But on this day Lord Torrington got near enough to observe with his own eyes the strength of the French force, and even to count the ships with some approach to accuracy. The prospect was not reassuring for an Admiral who knew that there were no reserves behind him, and that his country was divided against itself. The two fleets anchored for the night, and on the morning of the 26th Lord Torrington wrote to Nottingham as follows :—

It is unaccountable why the French shunned us ; for though they had many ships to leeward, and scattered, they had enough in a body to have given us more than sufficient work. I do acknowledge my first attention of attacking them a rashness that will admit of no better excuse than that, though I did believe them stronger than we are, I did not believe it to so great a degree. I find by their manner of working, that notwithstanding their strength, they act with some caution, and seem to be willing to add to the advantage of force that of wind too. Their great strength and caution have put soberer thoughts into my head, and have made me very heartily give God thanks they declined the battle yesterday. And, indeed, I shall not think myself very unhappy if I can get rid of them without fighting, unless it may be upon equal terms than for the present I see any prospect of. I find I am not the only man of that opinion, for a Council of War I called this morning unanimously agreed we are by all manner of means to shun fighting with them, especially if they have the wind of us, and retire, if we cannot avoid it otherwise, even to the Gunfleet, the only place we can with any manner of probability make our party good with them in the condition we are in.† We have now had a pretty good view of their fleet, which consists of near, if not quite, 80 men-of-war, fit to lie in a line, and 30 fire-ships, a strength that puts me beside the hopes of success, if we should fight, and really may not only endanger the losing of the fleet, but at least the quiet of our country too ; for if we are beaten, they being absolute matters of the sea, will be at great liberty of doing many things they dare not attempt whilst we observe them, and are in a possibility of joining Vice-Admiral Killigrow and our ships to the westward. If I find a possibility, I will get by them to the westward to join those ships ; if not, I mean to follow the result of the council of war. In the meantime, I wish there might be speedy orders given to fit out with speed whatever ships of war are in the river of Chatham, and that the ships to the westward proceed to Portsmouth, and from thence, if the French come before the river, they may join us over the flats. This is the best advice I can give at present ;

* Sometimes there is nothing more puzzling than to make out, from the accounts of historians, what fleets actually did. In this case Lediard and Entick have followed Burchett, not perceiving that Torrington's statements do not agree with their own vague ones. Berkeley gives a mere paragraph to the whole thing. The author of the MS. Memoirs of Lord Torrington (Byng), now printed by the Camden Society and edited by Professor Laughton, distinctly states that when Torrington (Herbert) sighted the French fleet they were to leeward of him, and then "drawing into a line of battle," he "bore down upon them." But this neither agrees with the wind as given by Lord Torrington in his letter, nor with the movements he described himself to have made. Speaker Onslow, in a note on Burnett's *History of his own Times*, says—speaking presumably of these Memoirs—that they give the best account of the battle of Beachy Head which he had seen.

† The Gunfleet is a bank running out from Foulness, north of the Thames, in an E.N.E. direction, in part covering Harwich, and affording anchorage to a large fleet behind it.

but had I been believed in winter, the kingdom had not received this insult. Your Lordship now knows the opinion of the flag-officers of both Dutch and English fleets, which I desire you will lay before Her Majesty, and to assure her that if she has other considerations, whenever she pleases to signify her pleasure, her commands shall be punctually obeyed, let the consequence be what it will.*

Nothing could be plainer or more straightforward than this cool exposition of the situation. As far as he could see, he was, with a force 55 men-of-war, opposed to a force of 80; and though if it were the mere winning or losing of a battle, the risk of one might be properly run, yet, considering what was behind—the army over in Ireland with the King, a large disaffected population ready to welcome the French, the considerable detachments of naval force, under Killigrew and under Cloudesley Shovel, open to annihilation—the risk of being beaten became disproportionably great. While if he could altogether avoid fighting, and merely wait and watch, he would render the great French armament powerless, and entirely defeat its ends. It could do absolutely nothing if Torrington declined to be drawn into a battle, because the moment it attempted anything by way of a landing, or an attack upon the shore, it would give to the British admiral exactly that advantage which was required to make his attack successful.

But his letter makes it perfectly clear that he proposed to abandon nothing, unless he was forced to do so. He was ready, rather than risk a battle at such immense disadvantage, even to retire behind the Gunfleet. For there, amongst the shoals, his fleet was secure; and while he was there, the very utmost the French could do would be to lie off the Thames and blockade it. But their inability to thread the intricate navigation of the entrance to the river was the very circumstance which would enable reinforcements to reach him “over the flats.” In his mind, the Gunfleet shoal was to do for him just what, more than a century later, the Duke of Wellington rightly calculated that the lines of Torres Vedras would do for him.

Short-sighted people in 1690 and in 1810 thought just in the same way. To them, a retirement behind the Gunfleet was an abandonment of the country to the Allies of the ex-King; and the retreat upon Lisbon was to give up Portugal to the French.

But Torrington had no intention of making for the Gunfleet except in the last resort. If he could win past the French fleet to the westward, he might pick up Killigrew and Shovel, and then returning with his augmented force, he would be able to deal satisfactorily with de Tourville, who was just as much pre-entend

* Entick, p. 548.

from meddling with the shore when Torrington was west as when he was east of him. The plan then was (1) at all hazards to avoid fighting with the odds so greatly against him; (2) to endeavour to pass the French to the westward; and (3) if this could not be accomplished, and the French forced him to the eastward, then he would secure himself finally behind the Gunfleet, where it was difficult to attack him at an advantage, but whence he could issue at any moment, and therefore could hold the French completely in check. Where also he could be reinforced until strong enough to take the offensive.

Nottingham, at the elbow of the Queen, either could not or would not understand anything of this. "Sir William Jennings,"* he wrote to Torrington, "is on board of the French Admiral, and examined some prisoners (whom they took off of Weymouth, and set on shore in the Isle of Wight) what the number of our fleet was; and they saying 90 sail of men-of-war, he was in a great rage, and threatened to hang them for lying, for that he was sure we had but 80 ships together; for the Dutch were not come, Killigrew in the Straits, and Shovel in the Irish seas; and that they came to destroy our fleet thus divided, first at Portsmouth, and then in the river. And they were extremely discouraged upon hearing the salutes, when they were told that it must be upon the arrival of the Dutch ships.† And we have further information that they are very ill manned. And though your lordship, that has seen them, may better judge of their number than we can by any advice from France, yet I have seen letters from one who, in company with others, was very near their fleet; and they all say, that they counted them twelve times, and could never make them more than 103 or 104 of all rates; of which they say positively there was not about 60 ships that could stand in a line."‡

The ships from Plymouth [Nottingham continues] sailed thence on Monday morning last, so that if they are not already with you they must be very near.

Sir Cloudesley Shovel sailed from Belfast at three of the clock in the morning of the 18th instant, so that he also cannot be far from you.

* One of James's adherents.

† Not impossibly it was this information reaching the French, and the hearing the salutes on the 24th, which disinclined them from coming to action on the 25th of June. It will have been observed that Torrington failed to count the French accurately, and somewhat over-rated their force. The French, perhaps, failed in the same way, proximity not being close enough for accurate counting.

‡ This, it will be observed, was as much under-counting as Torrington's over-counting. There were certainly 70 ships fit for the line, and if the galleys were then with them, which, however, I doubt, there were 106 sail all told. Torrington might easily have been deceived if the 15 galleys, the 5 frigates, and the 16 fire-ships were all present.

By letters from Vice-Admiral Killigrew, dated May 26th from Cadiz, I find he intended to sail in a few days, and return according to his orders.

So that upon the whole, if you should retire to the Gunfleet, the ships from Plymouth, if not joined with you and Sir Cloudesley Shovel, and all the ships returning from Ireland, and Vice-Admiral Killigrew, with that squadron and a rich fleet of merchantmen, will all be exposed to inevitable ruin. And besides, the French may have opportunity of going with their whole fleet, or sending such part as they may think fit to Scotland, where they are expected; and we have too good reason to apprehend disturbances.*

This would be a perverse enough misunderstanding of the situation, and of Torrington's view of it, if it stood alone. But the *non-sequitur* of the enclosure almost takes one's breath away. Nottingham was in the main only repeating what Torrington had put in his mind, but with the inferences turned inside out. The importance of joining, or at least of securing the safety of Killigrew and Shovel, was the matter which dwelt in the foremost place in Torrington's mind, and his main effort, as sketched out, was the endeavour to join them. If he could not pass the French to the westward, but could keep in observation of them to the eastward, his colleagues would be safe enough. For if de Tourville should go west after them, Torrington would follow him up; if he should detach force sufficient for their destruction, he would weaken himself so much that Torrington might engage him at an advantage.

It was just the same with regard to Scotland. If Torrington was forced back—in order to avoid a battle—to the Gunfleet, the French could neither proceed to Scotland in full force nor send a detachment there. First, because they would be unable to shake off Torrington; and, secondly, because if they weakened themselves by detaching, Torrington would fall on the remainder.

The one thing certain, both from Torrington's words and Nottingham's, was that the French wished of all things for a general action with the odds in their favour, and this alone was sufficient to prescribe a refusal. The one point on which Nottingham could hang a grain of justification for the extraordinary enclosure which his letter contained, was his estimate of the relative forces watching each other. He assumed them nearly equal. Torrington and his brother admirals, looking at both fleets when they so decided, were of opinion that the odds were too great to give reasonable hopes of success. What right had any statesman or politician in London to treat as fallacious estimates of force so arrived at?

But Nottingham did it; for his letter, written in such haste

* Entick, p. 549.

that he was unable to take a copy of it, enclosed a positive order from the Queen to Torrington to bring the French fleet to action. The order ran :—

MARIE R.

Right trusty and well-beloved cousin and counsellor, we greet you well. We have heard your letter dated June 26, to our Secretary of State, and do not doubt of your skill and conduct in this important conjuncture, to take all opportunities of advantage against the enemy. But we apprehend the consequences of your retiring to the Gunfleet to be so fatal, that we chuse rather you should upon any advantage of the wind give battle to the enemy than retreat further than is necessary to get an advantage upon the enemy. But in case you find it necessary to go to the westward of the French fleet, in order to the better joining with our ships from Plymouth, or any others coming from the westward, we leave it to your discretion, so as you by no means ever lose sight of the French fleet whereby they may have opportunities of making attempts upon the shore, or in the rivers of Medway or Thames, or get away without fighting. And so we bid you heartily farewell.*

This order was, of course, Nottingham's, and its wrongheadedness may possibly show itself to the reader who has followed me thus far. There is no sign in it of an understanding of the possibly overwhelming consequences of a lost battle, for it assumes it to be a bad thing to let the French "get away without fighting." Nottingham must have got it into his mind, and carried it into the mind of the Queen and her council, that the well-tried Herbert and his colleague flag-officers were incompetent cowards, fearing a battle where there were at least fair chances of success, and nothing to follow defeat if it should come. But as has often happened since, the statesman was found on the quarter-deck, and the rash blunderer at the seat of Government. There was absolutely nothing to be gained by a battle which could not possibly be a decisive victory, and over which from the great numbers engaged, and the limits placed on manœuvring by the character of the ships and the lightness of the wind, the admirals could have no real control. A complete victory to the enemy on the other hand, would, at the very least, have sent the Dutch King back to Holland, if it did not place this kingdom under the orders of the Pope and of Louis. The sailors saw it all well enough. The statesmen neither saw it then nor afterwards.

While Torrington's report of the 26th was on its way to town, and while Nottingham's despatch and its ruinous enclosure were on their way back, the British fleet had been pressed eastwards as far as Beachy Head. Torrington received the Queen's order on the 29th, and at once sat down to acknowledge the receipt of it to Nottingham.

* Entick, p. 549.

My Lord,

I this minute received Her Majesty's orders, which I will (so soon as I can get the flag-officers on board), communicate to them: I am very certain that they all will, with myself, with great cheerfulness give due obedience to her commands.

Now in answer to your Lordship's, I infer from the examination of the prisoners they took off Weymouth, and set on shore at the Isle of Wight, that the French are as strong as we take them to be; for were they not so strong, or under any consternation, I cannot think they would have put anybody ashore to bring us the news of it, but quietly have retired. For if they do not think they have the advantage, I am yet to learn what can move them to stay, having for several days had a fair wind to carry them off. And, my Lord, notwithstanding your advice from France, I take them to be 80 men-of-war strong. How they are manned indeed, I am not able to judge; but I am credibly informed by some French prisoners, who were taken in a small bark, that they are well manned, and that the Toulon ships are now with them. Had we had Killigrew with us, the match had been a little more equal. I cannot comprehend that Killigrew, the merchant ships, Shovel, or the Plymouth ships, can run much hazard if they take any care of themselves. For whilst we observe the French, they cannot make any attempt either upon ships or shore, without running a great hazard; and if we are beaten, all is exposed to their mercy. 'Tis very possible I reason wrong, but I do assure you I can, and will, obey. Pray God direct all for the best. I send your Lordship a copy enclosed of your letter to me. Pray, my Lord, assure Her Majesty that all that can be done by men in our circumstances shall be done for her service.*

In accordance with the Queen's orders and this decision, Torrington, at daylight next morning, proceeded to draw his fleet into line. The wind appears to have been from the eastward, and very light, and the line was formed on the starboard tack, with the ships' heads to the northward. The Dutch formed the van, Torrington, according to usage, commanded the centre, and Delaval the rear. About eight on the morning of June 30th, signal was made to engage, the allied line bore down on the French to leeward, who lay to with their head-yards aback and waited for the onset.†

* Entick, p. 549.

† The composition of Torrington's fleet is given in the *Memoirs of Lord Torrington* (Byng), already quoted, and I have not met it elsewhere. The Dutch van consisted of 22 sail, as follows:—

Ships.	Guns.	Ships.	Guns.
1 of	92	2 of	64
1 „	82	1 „	62
1 „	74	4 „	60
2 „	72	2 „	52
1 „	70	5 „	50
1 „	68	1 „	44

The English centre and rear of 35 ships:—

Ships.	Guns.	Ships.	Guns.
1 of	100	1 of	66
1 „	96	1 „	64
5 „	90	3 „	60
1 „	82	1 „	54
1 „	72	1 „	52
16 „	70		

Here, I do not examine the tactics of the battle that followed. It is sufficient to mention that the Dutch in the van got into close action with the rear part of the French van, and were doubled on by the nine leading ships of the latter.* The British rear also got into action, but not so close, with the French rear. The ships in the French centre were to leeward of the van and rear, and Torrington in the British centre, attacked them only at long range, and left for some time a gap between himself and the Dutch. The Dutch were badly damaged, but saved themselves, or were saved by Torrington's orders, in consequence of their dropping their anchors when the ebb made, which the French not perceiving, drifted away to the westward out of gun-shot.† One of the Dutch ships, from inability to anchor, drifted away with the French and was captured.

In the evening, Torrington weighed, and taking in tow the disabled ships, beat to the eastward against the light foul winds that prevailed, taking the precaution to drop his anchors when the ebb-tide made against him. The French followed, not in general chase, but in line of battle, the contemporary opinion being that the desire to maintain the fighting formation saved our fleet from destruction. At any rate, the council of war which sat on the 1st July, decided that things were so bad with them that if they were pressed by the French, it would be necessary to destroy the disabled ships and retire, rather than face a renewal of the fight.

The French pursued, but not strenuously, for four days, by which time the Allies had reached Dover, and had left the enemy so far in the rear that the pursuit was abandoned, and the French drew off to the westward. The Allies suffered losses in the pursuit, four Dutch and one English ship having either been burnt or run ashore in a disabled state.

Naturally, the alarm was great in England on the news of this defeat spreading. Immediate invasion was the least that was expected. But it should seem that Torrington was entirely right in his strategical judgment. The French made for their original destination, Torbay, where they anchored and landed a party to burn the village of Tynemouth, which was easily driven off by

* *Memoirs relating to Lord Torrington*, p. 46.

† Not only were numbers of ships against the Dutch, but the individual power of their ships was less than that of the French. The average force of the 22 ships forming the Dutch van was but 61·8 guns, while of the 25 leading ships of the French it was 64·7.

the hastily assembled militia. They also destroyed one or two vessels of little value in the harbour, and later retired to Brest; some ruined houses at Tynemouth, some burnt small craft, and a single captured man-of-war being the insignificant trophies of the great expedition.

Torrington's defence of his conduct was the strategical conditions he had to contend with. He was greatly inferior to the French, but they were powerless for mischief as long as his fleet existed. When forced by the Queen's order to fight a battle which there was no hope of winning against ships not only more numerous but of greater individual force, it behoved him to take care that he ran no risks of being beaten.

That our fighting upon so great a disadvantage as we did was of the last consequence to the kingdom, is as certain as that the Queen could not have been prevailed with to sign an order for it, had not both our weakness, and the strength of the enemy, been disguised to her. . . .

It is true, the French made no great advantage of their victory, tho' they put us to a great charge in keeping up the militia; but had I fought otherwise, our fleet had been totally lost, and the kingdom had lain open to an invasion. What then would have become of us in the absence of His Majesty, and most of the land forces? As it was, most men were in fear that the French would invade; but I was always of another opinion; for I always said, that whilst we had a fleet in being, they would not dare to make an attempt.

In my letter of the 29th June, the matter is stated pretty plain: whilst we observe the French, they can make no attempt either on sea or shore, but with great disadvantages; and if we are beaten all is exposed to their mercy. This I dare be bold to say, that if the management of the fleet had been left to the discretion of the council of war, there would have been no need of the excessive charge the kingdom was put to in keeping up the militia, nor would the French have gone off so much at their ease.*

So that, even though the beaten Allied fleet had come "to an anchor at the Nore in great confusion; and expecting that the French might attack them, all the buoys were taken up, and other necessary dispositions made as soon as they got there,"† yet the strategy of the conditions was such as to leave and keep the great French fleet powerless. If, indeed, the enemy had followed up and beaten the fleet at the Nore absolutely, "all would have been at his mercy." But "a fleet in being," even though it was discredited, inferior, and shut up behind unbuoyed sandbanks, was such a power in observation as to paralyze the action of an apparently victorious fleet either against "sea or shore."

This is the part of the battle of Beachy Head which constitutes its chief interest, but which is hardly touched by the

* Torrington's defence, Entick, p. 549.

† *Memoirs relating to Lord Torrington*, p. 47.

different historians who have related the story. The first attempt of the French to gain the command of the sea with a definite ulterior purpose failed, because, as a fact, they were not enterprising or persevering enough to secure the preliminary condition. They had beaten our fleet, yet not to the point of annihilation which was necessary if the command of the sea was to be gained. Lord Torrington's acquittal by the court-martial which tried him, in the face of very strong influences on the other side, is a significant reminder of the naval views of that day.*

Both countries had now studied in the school of experience. But if the French had hardly got to understand what sort of a command of the sea would be necessary before invasion could be thought of; the English had taken some warning as to the dangers of delay and parsimony in the preparation of naval defence.

The French plan for 1692 was as follows. By arrangement with the disaffected party in England, an attempt was to be made to land an army of 20,000 men† on the coast of Sussex, the arrival of which should be the signal for a general rising in the country on behalf of James. This army, assembling with the necessary sea-transport at La Hogue, Cherbourg, and Havre, consisted of 14 battalions of English, Scotch, and Irish, and 9,000 French, was joined by the ex-King.‡ No doubt it was originally intended that the French fleet of 1692 should be as superior to that of the Allied English and Dutch as it had been in 1690, and equally beforehand in beginning hostilities. The authorities at Brest were ordered to prepare the whole of the ships there for sea, and orders were given that a contingent of 18 sail-of-the-line should join them from Toulon. Then the precedent of 1690 was taken up, and it was hoped that de Tourville—again in command—might be able to fall upon and destroy the British home fleet before it could be joined by the Dutch, and that then the invading military force might cross and encourage a successful rising of the Jacobites.

But two things happened, or rather three, which marred and rendered abortive the otherwise reasonable plans of the French. The Toulon contingent, approaching the Straits of Gibraltar on the 18th of May, was met by a gale of wind, which drove two of the

* A matter not touched on by any of the historians, which will deserve comment when I approach the tactical part of my subject, is the non-use by Torrington of his fire-ships. I have not observed that anyone says a word about them.

† Forbin, quoted by Lediard, vol. ii., p. 665.

‡ Entick, p. 555. O. Troude, vol. i., p. 209. Troude says there were but 12,000 men, but this is purely a mistake.

ships ashore at Ceuta, and so dispersed and damaged the remainder that they were not able to reach Brest till the end of the month of July, by which time many things had happened.

The second misfortune which the French suffered were the persistent advices from English Jacobites, that many of the captains of the British fleet had been gained over to the cause of James, and would desert to the enemy at the first opportunity.

The third misfortune was that the Dutch were more prompt and earlier than usual in joining the English fleet, and that Louis' information on this head had failed him.*

James pressed upon Louis the certainty of his information with regard to the disaffected English captains, and the relative weakness of the English fleet alone; and in an evil hour for the French success, Louis sent orders to de Tourville to put to sea with the 45 ships of the line and the 7 fire-ships which were ready at Brest, and to fall upon the English before the junction of the Dutch, whether they were strong or weak. De Tourville sailed, but foul north-easterly winds delayed his progress up Channel, and facilitated the passage of the English down Channel, and the approach of the Dutch to join them. Cruisers were despatched after de Tourville, from Barfleur and elsewhere, to countermand the previous orders, but the despatches never reached him, and he went on towards the point where the army for invasion was assembled.

The English had, as I have observed, profited by experience. They do not seem to have had any accurate information of the French complete design, for they were, down to the last moment, proposing a descent on St. Malo, and the necessary troops were called together at Portsmouth for the purpose. But they were well aware that a great sea force early in the field was the double necessity under the knowledge that some design was in preparation in France. Admiral Russell was appointed to the command of the Home fleet as early as the 3rd of December 1691, and great activity was displayed in pushing on the fitment of the ships.

Look-out ships were sent out to observe the movements of the French, and as the ships grew towards readiness, two strong squadrons were despatched into the Channel with orders so curiously inconsequent as almost to show that the real designs of the French were quite misunderstood.

Sir Ralph Delaval had arrived in the Downs with a squadron in the beginning of March, after successful convoy service from the Mediterranean, and was now ordered to reconnoitre the French

* O. Troude, vol. i., p. 209, *et seq.*

coast as far as Cape La Hogue, with scouts out to give him due warning of the enemy's approach. Then he was to cross over to the Isle of Wight, whence, if no orders reached him, he was to return along the French coast to Dover, and again, if no orders reached him, he was to repair to the flats off the North Foreland.

Admiral Carter, with a considerable squadron, including 11 ships for the line, had orders on the 14th of April to sail to the Channel Islands, and to cruise near St. Malo for eight-and-forty hours, unless "an opportunity of doing service" should recommend a longer stay. Then he was to look in at Havre, and if no service could be done there, he was to return to Spithead.*

It is not very easy to understand what was in the mind of the authorities dictating these orders. Mere reconnoitring a part of the French coast, where either no heavy ships or the whole naval force of France might be expected to be met, could have been much better carried out by a few very light and insignificant ships; and it does not appear that mere collection of intelligence was the object. But if not, then what *was* the object? Dangers were run in separating such considerable bodies from the main fleet, and leaving them liable to be taken at a disadvantage. I do not perceive that value, compensating for the risk, was aimed at. And, indeed, this view seems to have been speedily taken, for countermanding orders to both Admirals almost immediately followed, resulting in general directions to Russell, Delaval, and Carter to concentrate south of the Isle of Wight.†

Admiral Russell, with the main body of the English fleet, arrived off Rye on the 8th of May, where some of the Dutch ships were already at anchor. The joined forces seem to have anchored thereabouts, and on the 10th a council of war decided, on considering the orders given to Sir Ralph Delaval, that it would be prudent to make a further delay off Rye, so as to secure his junction.‡ The fleet, however, sailed for St. Helen's on the 11th, and on the 13th, Delaval and Carter, who had already formed a junction at sea, joined Russell at St. Helen's.

The British admiral now found himself at the head of an enormous fleet. The Red squadron, under Russell, with Sir Ralph

* Lediard, vol. ii., p. 656.

† Lediard (vol. ii., p. 656, note) considers that the first countermanding orders followed on intelligence that the French were preparing for sea (at Brest?). The dates were 20th and 23rd of April. Creasy, *Invasions of England*, says Russell was playing false, if so, many things are explained.

‡ Burchett, p. 463; Lediard follows.

Delaval and Sir Cloudesley Shovel as vice- and rear-admirals, consisted of 5 first-rates, 3 second, 16 third, and 7 fourth. The Blue squadron, under Admiral Sir John Ashby, Vice-Admiral Hon. George Rooke, and Rear-Admiral Hon. Richard Carter, consisted of 1 first-rate, 7 second, 18 third, and 6 fourth-rates. The English part of the fleet consisted thus of 63 ships of the line, carrying 27,725 men, and 4,500 guns. Besides these were 23 frigates and fire-ships.

The Dutch formed the White squadron, under Admiral Allemonde and two Vice-admirals, which consisted of 36 ships-of-the-line, namely, 9 first, 10 second, 9 third, and 8 fourth-rates. The division carried 12,950 men, and 2,494 guns. Attached to the division were 14 frigates and fire-ships. The total line-of-battle force was therefore 99 sail, carrying 40,675 men, and 6,994 guns. I suppose that never before or since has such a tremendous naval force been assembled under one admiral, and yet from want of proper intelligence, the French admiral at the head of less than half the force, was quietly sailing up channel to be destroyed by it.*

Russell seems to have had no advices of the near approach of the French. The Allies were full of the intended descent on St. Malo, and Russell's proposal was that, guarded by the whole fleet to the westward, the descent should be made by the troops prepared at Portsmouth. But as a preliminary a squadron of 6 light frigates was despatched towards Havre and that part of the French coast, to reconnoitre; and on the 18th of May the whole fleet weighed, and stood directly over towards Cape Barfleur.

It does not appear that either side were aware of the immediate proximity of the enemy. The weather was thick and the wind light from the westward, and the Allied fleet stood on, on the starboard tack, till about 3 o'clock on the morning of the 19th May. Then guns were heard from the look-outs to the westward, and soon, out of the fog, two of them appeared with the signals flying denoting the presence of the enemy. Russell at once made the signal for the rear to tack, so as to meet the French if it should turn out that they were on the port tack. But as the sun rose, the weather cleared, and the French were seen to be forming their line on the starboard tack with their heads to the southward. Russell ran to leeward, and then, his line fairly well formed from S.S.W. to N.N.E.,

* Lediard gives the names and guns of 63 French ships, and says there were 55 small craft attached. But he admits he may over-state. Troude gives names of captains as well, and I accept his statement, the more so as Russell himself makes the number as under 50.

lay to and awaited the attack of the French, the Dutch White squadron forming the van, the Red squadron the centre, and the Blue the rear, as the signal to tack had been annulled.

What concerns us, now that we have brought the French fleet all but into contact with the Allied fleet of twice its force, is less any close investigation of its disastrous defeat which most inevitably followed, than those general reflections which naturally arise on such a complete failure of strategy. Let us first bear in mind that we have a set of conditions just opposite to those which had, two years before, surrounded the battle of Beachy Head. The superiorities of the attacking and defending fleets were reversed, and the attacking fleet was to windward, barred therefore from all chances of escape, because the propulsive force on which escape depended, was adverse. De Tourville had fallen into this horrible trap, not of choice, but from want of intelligence. Hoping, in the fog, that the enemy, of whose presence he possibly had warning for the first time by the sound of our look-out ship's guns, was at most the whole English, or the whole Dutch fleet, the lifting of the fog left him in face of a combination such as would have in any case kept him at Brest had he known of it. Close to him was the army of invasion and its transport. The cruising squadrons of the English had, up to this time, made it impossible for the force at La Hogue to dream of moving. Now, it was quite certain that, whatever happened, the game of invasion was up. It was not a question of de Tourville's being beaten, it was only one of escaping total annihilation, if such escape were possible. The invasion project so far had come to this, that there had been all the expense of collecting a useless army in Normandy, besides the certainty that such a collection was about to involve the greater or less destruction of the French fleet.

We are not told how the tide was when the two fleets sighted one another. Had it been flood, de Tourville might have profited by the example of Torrington, and by dropping his anchors immediately, suffered the enemy to drift away from him. Had it been ebb, I know not what he could have done other than what he did do, that is, to put the boldest possible face on it, and bear down to the attack.

But of course it was hopeless. In the thick weather that again set in, it was impossible to say exactly what happened, but that the unhappy French were everywhere beaten and dispersed. The wind had shifted to the N.W. by W. in the afternoon, which facili-

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SHIPS OF THE LINE IN ACTION AT CLOSE OF SEVENTEENTH CENTURY.

tated the attempts of the French to escape south and south-west indiscriminately, which they did. Later on the wind changed to the eastward and freshened. Next day (the 20th May) Russell wrote that it had continued calm all night. There had, during the day's calm, been an engagement to the westward of him, "which he supposed to be the Blue." "I can give," he said, "no particular account of things; but the French were beaten, and I am now steering away for Conquet Roads, having a fresh gale easterly, but extremely foggy. I suppose that is the place they design for.* If it please God to send us a little clear weather, I do not doubt but we shall destroy their whole fleet. I saw in the night three or four ships blow up; but I know not what they were."†

There was nothing now to be done but to pursue and destroy. Some of the beaten enemy made for St. Malo, and secured themselves; but some that escaped to Cherbourg and others to La Hogue were fallen upon and burnt by Delaval and Russell himself. There were no less than 15 ships of from 60 to 104 guns destroyed, 3 at Cherbourg, and 12 at La Hogue. The French attempt to gain the command of the sea had a second time failed, but now disastrously.

* He was still 21 miles N.E. of Cape Barfleur when he wrote. Conquet Roads are close to Brest.

† I have taken for illustration of battle at this date a sketch of a picture which hangs in the house of the Admiral Superintendent at Devonport, and of which no history exists, but to which I have had access through the kindness of Sir Walter Hunt-Grubbe, the present superintendent. The painting has suffered from decayed portions of it having passed through the hands of some audacious master painter in the yard, but what has not been touched is of exceeding beauty and truth. It is impossible to say who was the artist, but internal evidence points irresistibly to the conclusion that it is nearly as old as the yard itself, which was founded in 1691, or is a copy of a picture of that date. The single reefs in the top-sails, the colouring of the hulls, the shape of the tops, shortness of the mast-heads, cut of the sails, and other things, all fix the date of the ships represented as close to that of La Hogue.

(To be continued.)



Boxing.

BY B. J. ANGLE AND G. W. BARROLL.

INTRODUCTION.



THIS art, so deservedly popular in England, is at the present time practised to an extent perhaps unprecedented in the annals of the sport, and though it cannot be regarded as, in any special sense, a military art, it is one of which British soldiers and sailors have always been at least as fond as their civilian brethren.

It has, undoubtedly, a very high value as a branch of the gymnastic art, and as a kind of reserve which shall not leave a man utterly resourceless in the absence of more purely military means of offence and defence.

The palmy days of the prize-ring have departed, probably never to return, and we are already far from the times when peers and commoners of sporting proclivities would have thought it shame to be absent from a great "battle." In those days, the days that are no more, the champions of the ring were persons of social importance little less than that of a favourite jockey of the present time, and were, as these are now, the favoured companions of British nobles, nay, of that great and glorious king, George IV.

But, though the prize-ring now, as far as the great majority of people is concerned, "blushes unseen, and wastes its sweetness on the desert air," of boxing matches with the gloves, among professionals and amateurs, there is no end. It is but a short time since we saw one of the great theatres of London devoted, for the space of an entire week, to contests of this sort, and walls which had rung to the silvery notes of a Patti or a Nilsson echo back the dull thud of the mittened hand upon the engaging features of some pet of the modern fancy.

It is one of the most cherished illusions of British youth that the "noble art of self-defence" is one of the natural attributes of English birth, and that every Englishman, though he may not actually be a skilful exponent of the art, has within him a well-

developed faculty of criticism in the matter, which comes to him by the light of nature.

The foreigner is supposed to be not unable, by assiduous toil, to attain some practical knowledge of sparring, but he does not inherit a native born faculty for it; of him it can never be said, as of the poet, *nascitur non fit*.

It is as in the matter of pointing; any dog can be taught to point, even a pig has been so taught, it is said, but the pointer points by hereditary instinct. Be this as it may, there can be little doubt that this natural gift is susceptible of great expansion and improvement by well-chosen example and precept, and the young Englishman who shall be desirous of using his "natural weapons" to the best advantage, will be well advised in seeking the tuition of some well-accredited master of the noble art.

But little can be done by way of mere precept in this as in other arts of defence, but some useful hints may perhaps be given and certain important cautions laid down.

It is with this persuasion that we have undertaken to write a short treatise on this subject, in which one of us at all events, will not be accused of altogether lacking experience.

It does not come within the scope of our modest design to notice the history of boxing, or to point out the undoubted antiquity of this art. That it was well known to the ancients is abundantly well known to the moderns, but the system in vogue is not so well understood; that it could not have comprised the quick exchanges of the present day is evident from the use of the cestus.

This instrument is not unknown at present among the boxers of India, and was in frequent use in the gladiatorial displays got up by the late amiable Guikwar of Baroda.

In its purely modern and European, or perhaps, American form, of the knuckle-duster it used to be a very frequent instrument of persuasion, and a powerful enforcer of discipline in the mercantile marine of the United States.

What we are concerned with, however, is the weapon that is formed by clenching the hand into a fist, and with the same natural weapon reduced to the condition of a practice one, by the use of the boxing-glove.

It is, perhaps, a matter for wonder that we do not hear of any nation or tribe of savages who practise anything resembling boxing. It seems strange that the fact of transforming the hand, by simply closing the fingers, into a kind of club should not occur to the dawning intelligence of the more or less noble savage, but

that he should show a strong tendency to scratch and tear with it instead.

The boxer is thus at liberty to think that his art is an outcome of a tolerably high degree of civilization, a conviction that cannot but be strengthened when he considers that England, with her very distinct claim to stand at the head of the modern western type of civilization, has been for many years the great if not sole supporter of this branch of the arts of defence. When we mention England we, of course, are not unmindful of the larger England beyond the seas.

In Australia the "noble art of self-defence" has been, and is, cultivated with much enthusiasm, and most satisfactory results, and it has become the chosen home of many professional boxers of eminence. The United States have in this, as in other branches of sport, shown us in how high a degree they inherit the best sporting instincts of the mother race.

The extent to which boxing is practised among American amateurs is cheering to all lovers of the art, and the astounding capital of the West, San Francisco—the history of which is one of the marvels of the age—in this, as in other matters, keeps up her high reputation, and, fortunate in the possession of a teacher of sound skill and high reputation, is, as usual, found well in the front rank.

Whether the decay of pugilism in its form of prize-fighting with the bare knuckles is a fact to be generally regretted or not, we will not attempt to decide; but that it has resulted in some deterioration in the form of boxing is, one cannot but admit, too true.

A strong tendency exists at present to hit, either with the inside of the hand, the reprehensible practice known as striking with the "heel of the hand," which cannot be too severely condemned, as being an attempt to obtain an unfair advantage, or with the point of the glove. In this latter case, a few inches of additional reach are got, but at the expense of all efficiency.

In the competitions which are held under the auspices of the Amateur Boxing Association hits got in this way are considered as having no value, while the practice first pointed out is very rightly held to be a ground for disqualification.

Without attempting to depict minutely the various movements of boxing in their entirety, and deliberately avoiding the mention of those which we look upon as exposing the boxer to too great a risk, it is our purpose to describe as briefly as may be consistent

with accuracy, the various positions, leads-off, guards and stops, and the modes of avoiding hits by ducking and slipping, which offer practical interest. We class them as follows :—

Position—Breaking Ground—Left-Hand Lead-off at the Head—Guard for Left-Hand Lead-off at the Head—The Counters—Counter at the Body with the Left Hand—Counter at the Body with the Right Hand—Guard for Left-Hand Lead-off at the Head and Counter—Guard for Left-hand Lead-off at the Head, and Guard for the Counter—Lead-off at the Head and Duck—Left-Hand Lead-off at the Body—Guard for Above—Stop for Above—Upper-cut with the Left Hand—Upper-cut with the Right Hand—Double Lead-off at the Body and the Head with the Left Hand—Guard for Above—Feints—Right-Hand Cross-counter—Stop for Above—In-Fighting—Ducking.

Position.—The pupil is made to face his instructor, his left foot in front, and pointing straight in the direction of his opponent, left



POSITION.

knee slightly bent, and foot flat on the ground, the right foot about once its own length in rear of it, the toes of the right foot

slightly to the right, but not nearly so much as to bring it at right angles to the left one, and the ball of the foot in a line with the heel of the left; the right leg nearly straight, and the weight of the body born on the ball of the foot, heel slightly off the ground.

Weight to be equally distributed between the two feet.

The right hand and fore-arm to be placed horizontally across the lower part of the chest, a weak point in the defence known to professors of the fistic art as "the mark."

The left hand is to be held horizontally on a level with the elbow, pointing to the front, elbow near the side.

Body three quarters turned towards the opponent; head inclined to the right, and turned slightly aside, so that you maintain your view of your opponent chiefly with the left eye, the object being to diminish the effect of a cross-counter with the right hand, which is aimed at the chin, or point of the jaw as it is known by pugilists, which is less likely to be reached in the position described. The entire attitude to be easy and unconstrained.

Breaking Ground.—When once placed in this attitude, the learner is taught to advance and retire, and to break ground to his right or left, but strictly enjoined in sparring to break ground to his *right* almost exclusively so as to avoid his adversary's right hand, and because a man who breaks ground to his left is apt to cross his feet, which may be fatal to him if attacked at the moment he finds himself in this position.

The advance is effected by stepping forward about ten inches on the heel of the left foot, and following up with the right; and the retreat, by stepping back with the right foot the same distance, and following with the left, the same interval between the feet being rigorously maintained, and their relative positions being unchanged.

In some instances, however, such as the lead-off at the head with the left hand, accompanied by a duck to the right, and the lead-off with the same hand at the body, and the several counters, the movement of the feet somewhat resembles a lunge in fencing, the right remaining on the ground, while the left advances from once and a half to twice its own length. It is evident that this position tends to throw the head and body on a lower plane, and combined with a lateral movement of the head and neck will permit the passage of the enemy's left hand over one or other shoulder. To break ground to the right, the pupil steps a little under twelve inches to his right with the right foot, immediately placing the left in position in front of it.

To break ground to his left he steps to the left with the left foot and, without loss of time, places his right in proper position in rear of it ; but this method, for the reasons before described, we by no means recommend.

Another way of getting out of your adversary's reach is by jumping smartly back, both feet being off the ground at once ; this may be repeated if you are hard pressed, and sufficient room is available. When out of danger you may drop the left hand to ease it.



LEFT-HAND LEAD-OFF AT HEAD AND GUARD.

The learner having been thoroughly taught this position, and practised in getting about lightly and actively, may now be taught the left-hand lead-off at the head, which is to boxing what the attack at the head is to sabre play, or a straight thrust to fencing.

Left-Hand Lead-off at the Head.—This attack, the most essential

feature in all boxing, may be looked upon as the *pons asinorum* of the boxer, and no real progress can be effected until the beginner has thoroughly mastered this movement.

The lead-off at the head should invariably be made with the left hand, body, hand, and feet working together, quickness of delivery being an absolute necessity. The blow is delivered by advancing the left hand and foot simultaneously (care being taken that the latter points straight to your opponent, as the hand will instinctively follow the line taken by the foot), the weight of the body chiefly supported by the right foot, the right foot following immediately, but resting lightly on the ground. We desire to carefully impress on the learner the great importance of leading off with the left hand and elbow in a proper position. At the commencement of the attack the elbow should be close to the side and kept down, the hand to be held with the palm slightly upwards, so that the knuckles will be the part to come into immediate contact with the face. We strongly advise what is known as "getting one for nothing" with the left hand, a clean well-delivered blow, and then getting away (keeping your eyes, fixed on your opponent's) to avoid a counter. Getting away or breaking ground is a most important detail, quickness on the feet being one of the most essential qualifications of a boxer. You may get out of danger by springing smartly backwards, both feet leaving the ground together, the weight of the body being equally distributed, the hands still kept in position to meet, if necessary, your opponent's rush; or, if a good judge of distance, and not too closely-pressed, by stepping back as before described.

Guard for Left-Hand Lead-off at the Head.—In order to deal with this attack, the pupil must be taught first to guard. Raise the right hand to a point in front of the left side of the forehead, and bring it forward into a position of half extension, in such wise that you retain a view of your adversary over your right fore-arm. Keep the elbow down and turn the palm of the hand outward, so as to get a pad of muscle before the bones of the fore-arm, to act as a buffer (in the same manner as is practised in the familiar trick of breaking or bending a poker over the arm).

It is necessary to impress upon the beginner the fact that in boxing he is not to keep his hand constantly tightly clenched, which would uselessly fatigue him and much interfere with the freedom and quickness of his movements.

In sparring round, and in guarding, the hands are to be kept partially open, and on the delivery of a blow to be firmly closed.

Whilst on this subject, we would impress upon boxers the necessity of hitting with that part of the glove which covers the knuckles, and not with the point or inside of the glove. Disqualification is often the penalty for the latter offence in boxing competitions, and hitting with the point of the glove is an inefficient hit, equivalent to fighting with the hands open. In sparring round the hands are not to be kept motionless in the position described, but both are to work lightly forwards and backwards in unison with the feet.



COUNTER AT THE BODY WITH THE LEFT HAND.

Another method of dealing with the left-hand lead-off at the head is by cross-countering with the right hand, which we shall refer to later, or by countering at the head with the left hand or at the body with the left or right hand.

To counter-at the body with the left hand, step in with the left



foot inside your opponent's, the ball of your foot in a line with that of his, incline the body, and the head well to the right, and hit with the left hand at the mark, hand and foot working together. Be careful to well time your adversary's advance. To counter with the right hand at the body, bend the body, and incline it and the head to the left, step in in the same way as before with your left foot, the heel of the right off the ground, bring forward



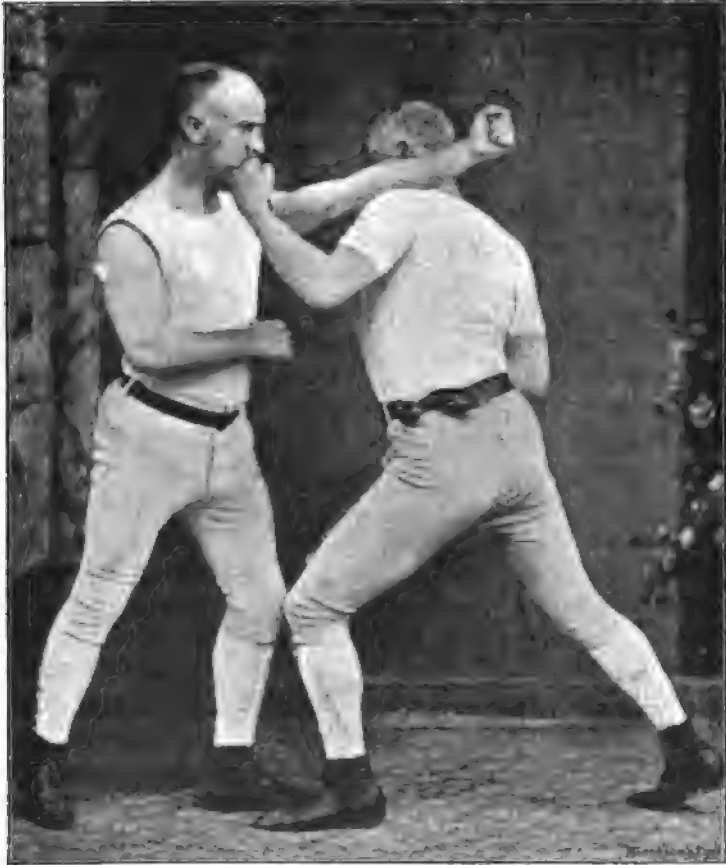
COUNTER AT THE BODY WITH THE RIGHT HAND.

your right shoulder, and hit with the right hand slightly below the heart, the palm of the hand turned down, keeping your left hand in position.

There is no possibility of stopping the right-hand counter at the body when leading off with the left hand at the head, if the counter is aimed at the spot directed (just below the heart), your right arm which protects the mark not reaching sufficiently far

to stop this blow, and your left arm being placed by its movement of attack in an impossible position for guarding.

To render these body counters effective, care should be taken to properly time your adversary, carefully watching his lead-off and moving upon it, thus you are enabled to give greater force to the blow by combining the impetus of both bodies.



LEAD-OFF AT THE HEAD AND DUCK.

After the counter has been delivered, get away smartly, keeping the head down until out of danger. It will be seen that the counters in boxing are combined with a scheme of defence, and are exempt from the peculiar and reckless atrocity of what is generally called a counter in stick-play. These inclinations of the body and head to the right or left, which we have attempted to describe, become effective movements of defence by carrying your

head out of the line of attack, and in other cases the counter is bound up with a guard, as will be shown in due place.

Guard and Counter for Left-Hand Lead-off at Head.—The guard may be combined with the counter by striking out at your opponent's face with your left, at the same time that you form your guard with the right hand.

The position of the left hand, with the palm partially turned upwards, and the elbow turned well under, is the same as in the lead-off, but the mode of working the feet is different; bring the left foot forward about once its own length, keeping the ball of the right foot firmly fixed in the ground. The movement somewhat resembles a riposte in fencing, except that from using both hands the movements of offence and defence may be made simultaneously.

Lead-off with the Left Hand and Guard the Left-Hand Counter.—The man leading off may, if he anticipate that his opponent will counter at the head with the left hand on his attack, guard his head with his right as he leads off.

Lead-off with the Left and Duck.—Lead off with the left, and incline the head and body to the right, in the way described when speaking of the left-hand counter at the body (this is technically known as ducking), so as to allow your opponent's left, should he counter, to pass over your left shoulder. In this case the ball of the right foot remains fixed on the ground, the left foot alone moving forward. The hand is held with the palm slightly downwards.

Left-Hand Lead-off at the Body.—The left-hand lead-off at the body is made in much the same way, the attacker keeping his right foot fixed and stepping in with his left, while he ducks to the right and delivers a hit at the "mark."

In this hit the knuckles are turned up, the elbow inclines slightly outwards. After delivering the blow, spring back well out of distance.

This is guarded by the right arm, which is kept well in its original position across the body, thus effectively protecting the mark.

Stop for Left-Hand Body Blow.—You can at the commencement of your opponent's movement counter at the head with your left hand. This forms what is termed a "stop," and is akin to a time hit with opposition in fencing.

Supposing you have not attempted to time your antagonist, after guarding the left-hand lead-off at the body with your right

hand, you can upper-cut him with the left hand. This blow is rendered effective by the fact of your adversary's head and body being inclined in such a way as to meet your left hand.

Left-Hand Upper-cut.—This is done by striking upwards at your antagonist's face with the left hand, with the arm bent, and the elbow down, carefully timing him as he advances. Your adver-



DOUBLE HIT AT BODY AND HEAD WITH LEFT HAND.

sary being brought so near you by his movement, an advance on your part to gain impetus is practically impossible.

Double Hit at Body and Head with the Left Hand.—Attack at the body, in the way described above, then bring your right foot up to about twelve inches behind the left, and step in again with your left, striking at the face as in the lead-off at the head.

The attack at the body is what is termed a "draw," your opponent being unprepared for the second blow with the left hand.

To guard this double hit, form a body-guard with the left arm, by keeping the elbow close to the side and protecting the mark with the fore-arm; form a head-guard with the right arm as previously described. This is a most effective guard when hard pressed or bewildered by the sudden rush of an impetuous opponent.

Feints.—The feint in boxing, as in the other arts of defence, is a show of attack made at one spot, in order to make one's adversary guard that, and in the act uncover some other point, or by applying the deception to the matter of time, instead of place, to follow up the feint by an attack at the spot feinted at, when the guard has been removed.

The feint with the left hand (you are not recommended to feint or to lead off with the right) is made by partially extending the arm as though about to strike, and slightly advancing the left foot.

Feinting is very often necessary, to obtain an idea of the plan of defence decided upon by your opponent.

We may instance a feint at the head to induce him to form a head-guard, thus leaving the body open, or *vice versa*.

An opponent with a good right hand is very prone to continued attempts at cross-countering. A feint at the head with the left will draw the cross-counter, and a bold lead-off at the head with a duck will completely frustrate the warm reception intended.

Right-Hand Cross-Counter.—This is the most formidable timing movement in the whole range of boxing, and is not to be attempted until the learner has acquired proficiency with his left hand. If it is not performed at precisely the right instant, he will be effectually stopped by his adversary's left hand. It is thus made: upon your adversary's leading off with his left hand at the head, step in with your left foot inside his left, duck to your left, and strike with your right hand, the back of the hand up, at the point of his jaw, bringing your right shoulder forward, and throwing the whole weight of the body into the blow. Your opponent's hit passes harmlessly over your right shoulder, and yours crosses over his left arm to land, if properly delivered, on the point of the jaw.

This blow, which gathers force and impetus from the movement of both men, not unfrequently finishes an assault completely by what is called "knocking out" a man. It appears to cause a certain degree of concussion of the brain by *contre-coup*. Even with a glove on, it is exceedingly severe, and should be used with caution in friendly sparring.

A well-known professional boxer has become celebrated by his

judicious use of this manoeuvre, thus finishing many contests in the most summary manner, and earning for himself amongst the pugilistic fraternity the honourable cognomen of "the knocker out."

Stop for Right-Hand Cross-Counter.—If you can catch your opponent in the face with your left, before he has time to duck,



RIGHT-HAND CROSS-COUNTER.

he will be either stopped in his movement or the counter will lose its efficiency.

This shows the absolute necessity of always leading off with the left hand at the head with determination. A half-hearted lead-off will allow your opponent sufficient time to cross-counter.

Remember that, in the phraseology of the boxing school, "a good left hand will always beat a good right." An opponent who

depends chiefly on the use of the right hand is not to be feared by the skilled boxer, one who has been taught the free and determined use of the left hand. Nat Langham, the only man who defeated the redoubtable Tom Sayers in the prize-ring, depended almost entirely on the use of the left hand, hitting at one eye until it was closed; and then turning his attention to the other.

Upper-cut with the Right Hand.—This is a most effective counter for the lead-off at the body with the right hand (which latter we do not advocate). Strike upwards at your opponent's face with the right hand, with the arm bent and the elbow down, carefully timing your opponent as he advances. Form a body-guard with the left arm by keeping the elbow close to the side, and protecting the mark with the fore-arm.

An upper-cut may be administered with either hand at an opponent who wildly rushes with his head down, and with no preconceived plan of attack.

In-Fighting.—In-fighting usually commences when no space is available for getting away, or when a boxer finds himself opposed to an adversary with an exceptionally good left hand. Unable to effectually stop the lead-off (except with his nose—a thoroughly acquired taste), he rushes to close quarters, and with head and knees slightly bent, and feet nearly on the level, the ball of the right foot being on a level with the heel of the left, and an interval of about 12 inches between the two, and eyes fixed on his opponent's, uses right and left rapidly at the head, being careful not to draw the arms too far back and to bring the body forward with either arm. The left hand should be aimed at the face and the right at the point of the jaw, keeping your hands as close as possible, thus enabling you to fight inside your adversary's hands, a most distinct advantage. In in-fighting a bad habit is sometimes noticeable of holding an opponent's head with the left hand and striking with the right. Holding is a breach of one of the rules governing boxing competitions, and is a severe handicap, allowing your opponent the use of right and left hands to your right. After delivering four or five blows effectually, get smartly away.

Ducking.—Various ducks have already been described *in situ*. Ducking the head to the right or left will take it effectually out of the line of attack, at the same time allowing you to counter with impunity. The two most effectual ducks are with the left-hand counter at the head and the right-hand cross-counter. Be careful only to duck when actually attacked, or to avoid a counter, ducking at a feint may be most disastrous.

We have now given a description of the movements of attack and defence, and the timing movements which have been found useful in practice.

Other methods of attacks are taught, notably the lead-off with the right hand, but we have deliberately omitted their description, as considering them dangerous to the attacker, who in making them lays himself perilously open to his adversary's left.

We have omitted also any mention of such manœuvres as "getting a man into chancery," or the various throws, such as "back-heeling," the "cross-buttock," &c. as all these are of little interest to the amateur boxer, and are rigidly excluded by the laws of the Amateur Boxing Association.

One word remains to be said as to the method of preparation for boxing, although we have no desire to enter upon a disquisition on the subject of training. There exists in the minds of some amateur boxers a desire to develop an inordinate show of muscle, to which end they practise with heavy dumb-bells and Indian-clubs, and work at slow gymnastic exercises. All this only results in making a man slow, and what is termed "muscle-tied."

What we recommend, with a view to the maintenance of condition and the development of proper quickness and activity, is the use of light dumb-bells, not exceeding two pounds each; skipping, an exercise tending to produce that quickness on the feet so desirable in the boxer; punching at a suspended sack and at a suspended foot-ball for practice in leading off and getting away smartly.

There exists so strong an affinity between boxing and the other arts of defence, such as, for instance, fencing and sabre-play, that assaults of the latter kind may be looked upon as useful practice for sparring, and the boxer who has some knowledge of fencing is likely to have his power of judging of time and distance much improved.

We append the rules of the A.B.A. formed for the government of amateur boxing competitions, and the definition of an amateur as accepted by the affiliated clubs.

RULES OF THE AMATEUR BOXING ASSOCIATION.

1.—In all open competitions the ring shall be roped, and of not less than 12 ft. or more than 24 ft. square.

2.—Competitors to box in light shoes or boots (without spikes), or in socks, with knickerbockers, breeches, or trousers, and sleeved jerseys.

3.—Weights to be: Bantam, not exceeding 8 st. 4 lb.; feather, not exceeding 9 st.; light, not exceeding 10 st.; middle, not exceeding 11 st. 4 lb.; heavy, any weight. Competitors to weigh on the day of competition in boxing costume, without gloves.

4.—In all open competitions, the result shall be decided by two judges with a referee. A time-keeper shall be appointed.

5.—In all open competitions, the number of rounds to be contested shall be three. The duration of the first two rounds shall be three minutes, and of the final round four minutes, and the interval between each round shall be one minute.

6.—In all competitions, any competitor failing to come up when time is called shall lose the bout.

7.—Where a competitor draws a bye, such competitor shall be bound to spar such bye for the specified time, and with such opponent as the judges of such competition may approve.

8.—Each competitor shall be entitled to the assistance of one second only, and no advice or coaching shall be given to any competitor by his second, or by any other person, during the progress of any round.

9.—In all open competitions, the result shall be decided by two judges and a referee, who shall be stationed apart. The judges shall award at the end of the first two rounds five marks, and at the end of the third round seven marks to the best man, and a proportionate number to the other competitor. At the end of each bout the judges' papers are collected by an official appointed for the purpose. In the cases where the judges agree, such official shall announce the name of the winner; but in the cases where the judges disagree, such official shall so inform the referee, who shall thereupon himself decide.

10.—The referee shall have power to give his casting vote when the judges disagree, or to stop a round in the event of either man being knocked down (the stopping of either of the first two rounds shall not disqualify any competitor from competing in the final round); and he can order a further round, limited to two minutes, in the event of the judges disagreeing.

11.—That the decision of the judges or referee, as the case may be, shall be final and without appeal.

12.—In all competitions the decision shall be given in favour of the competitor who displays the best style and obtains the greatest number of points. The points shall be for "attack," direct clean hits with the knuckles of either hand on any part of the front or sides of head, or body above the belt; "defence," guarding, slipping, ducking, counter hitting, or getting away. Where points are otherwise equal, consideration to be given the competitor who does most of the leading off.

13.—The referee may disqualify a competitor for delivering a foul blow, whether intentionally or otherwise, and after cautioning the offender, he may also disqualify any competitor who is boxing unfairly by flicking or hitting with the open glove, by hitting with the inside or butt of the hand, the wrist, shoulder, or elbow, or by wrestling, or roughing at the ropes.

14.—In the event of any question arising not provided for in these rules, the judges and referee to have full power to decide such question or interpretation of rule.

DEFINITION OF AN AMATEUR.

An amateur is one who has never competed for a money prize or staked bet, or with or against a professional for any prize, except with the express sanction of the Amateur Boxing Association, and who has never taught, pursued, or assisted in the practice of athletic exercises as a means of obtaining a livelihood.

A Ride on an Alligator.

By CAPTAIN WILMER.



THE object of my hitherto uneventful life has been accomplished; I am truly and actually a commissioned officer of Her Majesty's Service. After a two years' course of study, as a cadet at the Royal Academy at Woolwich, I have emerged as a full-blown lieutenant of Artillery, and I think no mean things of myself, as I strut and swagger about in my brand new uniform, with my sword clanking after me at every stride I take. I am particular in mentioning my sword, as, being of small stature and slight physique, I am led to the belief that my sword is nearly, if not quite as important a unit as I am myself.

But though nature has moulded me in a small frame, I make bold to say that I have feelings, hopes, aspirations, and longings, just as vigorously implanted within me as in other men of bulkier proportions.

The next object that just now engages my attention may be summed up in the two words "Foreign Service." I do not much care whither I am ordered, provided it satisfies my craving for seeing foreign lands. I am an ardent admirer of nature; I love to gaze on landscape of hill and dale, mountain torrent and peaceful lake; the song of birds and the cry of wild creatures fills my soul with delight, and I am, in a word, never so happy as when alone, and yet not alone, with nature.

I must have been born under some lucky star, for I had no magic lamp to rub (as had Aladdin) and attain to my wishes, and yet a very few weeks elapsed ere I received orders to take a detachment of men to a country which, to my fervid imagination, seemed to loom forth as a very fairyland.

British Guiana was to be my destination. Why that country should appear to me a fairyland I hardly knew; I certainly was not aware, until I hunted up the name in a book on ge-

that Demerara and British Guiana were one and the same place, and I hardly knew where to look for either on the map.

However, as I had to sail very shortly from Gravesend, after the receipt of my orders, I lost no time in making my preparations for the journey, and you may be sure that a good double-barrelled gun was included in my kit.

Journeys by sea have so often been described, that I will not lose time by repeating the description of a passage that has so often been described before. Nothing very eventful occurred *en*



voyage, and I was soon landed with my gunners upon the hospitable shores of British Guiana, and proud indeed did I feel of my position, as one of an army, entrusted with the care of Her Majesty's colonial possession.

Everything in those days seemed *couleur de rose*; I was blessed with youth and health and spirits; I had a sufficient allowance from my father, which, with my pay, was ample to satisfy my simple tastes; I had a new and interesting country to explore, game in abundance to shoot at, unlimited land to shoot over, all

these things combined to give me a real zest for life ; in short, I was supremely happy.

Two or three days were occupied in getting comfortably settled in my new quarters, which I found on landing were situated in a small garrison town, on the Mahaika coast, within easy reach of the Berbice River, whose mouth is, for some considerable distance, dotted and intersected by innumerable small islands and rocky sandbanks, forming between one another channels of brackish tidal waters, sometimes broadening out and assuming the dimensions of small lagoons ; so intricate indeed is the labyrinth thus formed that there are tales extant of venturesome individuals, who, wandering far from landmarks, have even been known to lose themselves in the network of islands, until rescue came to them in the form of some stray Buck Indian, who, with his canoe, chanced to paddle past that way.

The water and the small islands above described were, at the time of year that I landed on the Mahaika coast, swarming with wild fowl ; they were comparatively secure from their chief enemy, man, and it was this very reason, joined with the love of adventure, that confirmed me in a plan I had formed of making an expedition against them. So I unpacked my gun, and with some difficulty obtained a small boat which I could either navigate by hoisting a balance lug, or, should the wind blow foul, propel with a small brace of sculls.

One fine morning, having stowed some provisions in the locker, away I started, my heart beating high in expectation of the raid I was about to make against the ducks. A fresh breeze favouring me, I skirted the coast at a spanking pace, making towards the mouth of the river, which was about five miles from the point whence I had started. What a lovely coast it was that presented itself to my gaze as I lazily reclined in the stern sheets of my small craft ; in the far distance were the hills and table lands of the Guianas, their white rocks sparkling with the lustre of quartz and mica, the bright sun giving them a golden and glittering appearance in contrast with the dark look of the Brazilian palms, which asserted themselves here and there in heavy patches of sombre background. The shore as we approached the river was decorated with countless bright coloured flowers, of indescribable splendour, among which was prominent the gorgeous "*Victoria Regia*," and just as I tacked to enter the River Berbice, a flock of flamingoes, looking in their scarlet uniforms like balls of fire, passed overhead sounding their trumpet-like call of alarm.

A rout of Muscovy ducks, startled at my coming, took wing, putting up in their turn a flock of teal, and I soon began to be aware that I must ship mast and sail and take to the sculls, if I wished to do any execution among the fowl.

I determined to keep as near as possible to mid-stream before entering the labyrinth of islands now fully exposed to view, partly to help me in getting landmarks to guide me on my return journey, and partly, that on turning down stream I could allow the boat to drift towards any wild fowl I might wish to stalk: the tide was on the ebb, so it would serve my purpose right well, when once I began operations.

For about half an hour longer I pulled up stream, and, the sun growing very hot, I thought I would turn into a channel I saw in front of me, and, pulling to the bank of a small island, rest me a bit and refresh myself with some lemonade which I had brought with me in a jar.

The sun beat down with unspeakable ferocity under the lee of the island. In the river I had been cooled by the breeze which had helped me on my journey; but here the rays of the sun poured down upon my back and shoulders with a violence I could hardly have believed possible a few moments before.

I did not tarry long, but, pulling out my sculls and carefully noting my position, I sculled still farther among the thousands of islands and sand-banks I now saw in front of me. Occasionally I could hear the hoarse, guttural voice of the pelican as he disappeared among the thick reeds, which grew around the shallows of some of the islands, and sometimes the quack of some wary mallard, as he retired from my too civilized appointments of boat and gun.

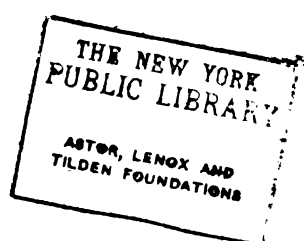
At last I perceived a vast company of ducks, besporting themselves upon the water and on the shelving bank of what seemed, in the distance, like a stony hillock, and not far from which was a high bank of reeds. I skirted round cautiously, until I got my boat into such a position that the current would carry me towards the spot without effort on my part; and, lying down full length in the stern of the boat, I awaited whatever fortune should have in store for me.

Though my quarry consisted only of wild duck I can hardly describe how anxiously I awaited the time when I should pull the triggers of my gun, and give the motley crew of wild fowl the contents of my two barrels.

I approached within sixty yards of the birds—still no great



"WHICH ANIMAL I QUICKLY RECOGNIZED TO BE THE JAGUAR."



signs of alarm. Another ten yards passed and the ducks began to collect together, as though aware of the approach of danger, and, finally, with much quacking and flapping of wings, they arose in one vast cloud into the air. I chose this instant to fire, and, letting them have my right barrel, I cut a lane completely through the flock. I was so astonished at the havoc I had created, that I failed to fire the left barrel; but, jumping up, I sculled rapidly to the island, and, springing out of the boat, gun in hand, proceeded to chase and capture the cripples on the island. This occupied but a very few minutes; and, turning round to collect those already dead, I was annoyed to find that my boat had drifted from off the island, and had been taken by the current to a distance of some forty yards and lodged securely against a bank of reeds.

What a bore, thought I. I must strip and swim for it; and, with this object, I approached the water, and was proceeding to divest myself of my coat, when my eyes fell upon a sight that filled me with consternation and alarm. Midway between me and my boat was a large alligator. He looked like a log upon the water; but his cruel snake-like eyes were fixed upon me. Well has he been called *Crocodilus-Lucius*, for his head was exactly like that of some monster pike; and little mercy should I have received at his hands had I ventured into the water.

Only forty yards, I have said, separated me from the boat, my only means of escape from a most perilous position. I dared not enter the water with alligators around; and I had positively no other way of reaching the boat but by swimming.

The only thing to do was to wait on the chance of hailing some Buck Indian, who occasionally, I had heard, were to be seen in their canoes, paddling about these creeks and lagoons in quest of sport; but I felt even this was but a poor chance of escape at best: the range of country was so vast and so intricate, and the Buck Indian a creature so comparatively rare.

In the meantime the sun beat down mercilessly upon me, and I would have given all I possessed for just one more pull at the jar containing the lemonade. But above the heat of the sun and the raging thirst that now began to consume me, above every other consideration, arose that strong instinct of self-preservation, implanted in us all, and which, when once aroused, is the most powerful feeling belonging to man. Before long night would cast her black mantle around, increasing tenfold the horrors of the situation. So long as I could see and face the dangers surround-

ing me I felt I could act, aye, and even die as a man and a soldier; but with darkness added to my difficulties I knew I should require even more than ordinary fortitude and resolution. However, action of some sort was necessary, and I instantly aroused myself and drove away, as far as possible, all gloomy and despondent thoughts.

I noticed a quantity of pieces of rock lying about, and collecting pieces as large as I could either roll or carry, I constructed in



the centre of the island, which was also the highest part of it, a sort of entrenchment, into which I carried my gun, the second barrel of which was still loaded, and the ducks, ten in number, which I had slain when I discharged the first barrel.

All this occupied some considerable period of the day, and by the time I had ensconced myself within my rudely constructed fortress, the sun was on the point of setting.

So beautiful was the landscape before me, in the light of the westering sun, that I actually for a moment forgot my troubles,

and caught myself wishing for a pencil and sketching block in order that I might draw a picture of what I saw, but in an instant I realised my position and the absurdity of my wish, and this so tickled my fancy that I burst out laughing; my voice sounded loud and discordant, and seemed almost to be echoed back to me from the adjacent islands.

After this, I fell a-thinking of bygone days, I wondered what my people were doing in England; then my thoughts turned to the spot I had immediately come from, my brother officers, the mess; then again to the ship I had crossed the ocean in, my baggage, the parade ordered for the following morning. At last everything in my brain got jumbled, mixed up and confused, and, worn out with anxiety and fatigue, I sunk to sleep upon the bare ground, my hand instinctively clasping the barrel of my Westley-Richards.

Some few hours must have elapsed ere I woke from a sleep resulting from exhaustion both of mind and body. On opening my eyes, I found it was hardly yet daylight, and for some time I gazed in a way that was almost hopeful, towards the east, endeavouring to catch the first rays of the rising sun, when they should appear.

In about half an hour, a piece of cloud showed above the horizon red as a piece of molten iron, this was soon followed by the sun itself, and then my eyes wandered in the direction of my boat; thank goodness it was still there, and more firmly fixed than ever, among the reeds. Had the current taken her off, my only chance of preservation from a dreadful fate would indeed have been cut away from one; my eyes then took in intermediate objects, and I saw, to my extreme horror, that several large alligators, or cayman as they are called in South America, were lounging upon the island, within a few yards of the water.

How I hated and detested their vile reptile forms, and their lack-lustre, snake-like, cruel eyes; I felt that they already regarded me as their lawful prey, and that with them it was merely a question of time; patience only was required on their part, and I should for a certainty fall a victim to their rapacious appetites.

I could not exist for many days without food or drink. I dared not venture near the creek, even to wash out my parched mouth with its brackish waters.

The very thought of liquid increased my thirst a thousandfold, and taking a knife out of my pocket, I ripped open one of the ducks, and placing the raw flesh to my lips, sucked out what I

could of moisture. I recognized that in these ducks lay my only means of prolonging my miserable existence upon this dreary rocky isle.

Oh, what a fearful day I passed ! My eyes were weary and sore with continued watching, hoping against hope that some passer by would see and rescue me from my desperate position ; my body ached from my hard bed of the previous night, and the uncomfortable posture I had taken up. I was faint from the combined effects of anxiety and hunger, but the day dragged slowly on, without relief of any sort.

The alligators had retired once more to the water, and I could see their horrid snouts appearing from time to time, and always, so I thought, with their eyes turned upon mine, as though already anticipating a savoury meal.

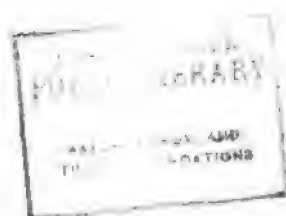
Evening at last came, and to the dangers of the previous night was unexpectedly added another ; there were a large number of turtles in the river as well as the swarm of alligators I had seen, and these turtles were in the habit of laying their eggs upon any sandy portion of the islands they could find that was well exposed to the sun.

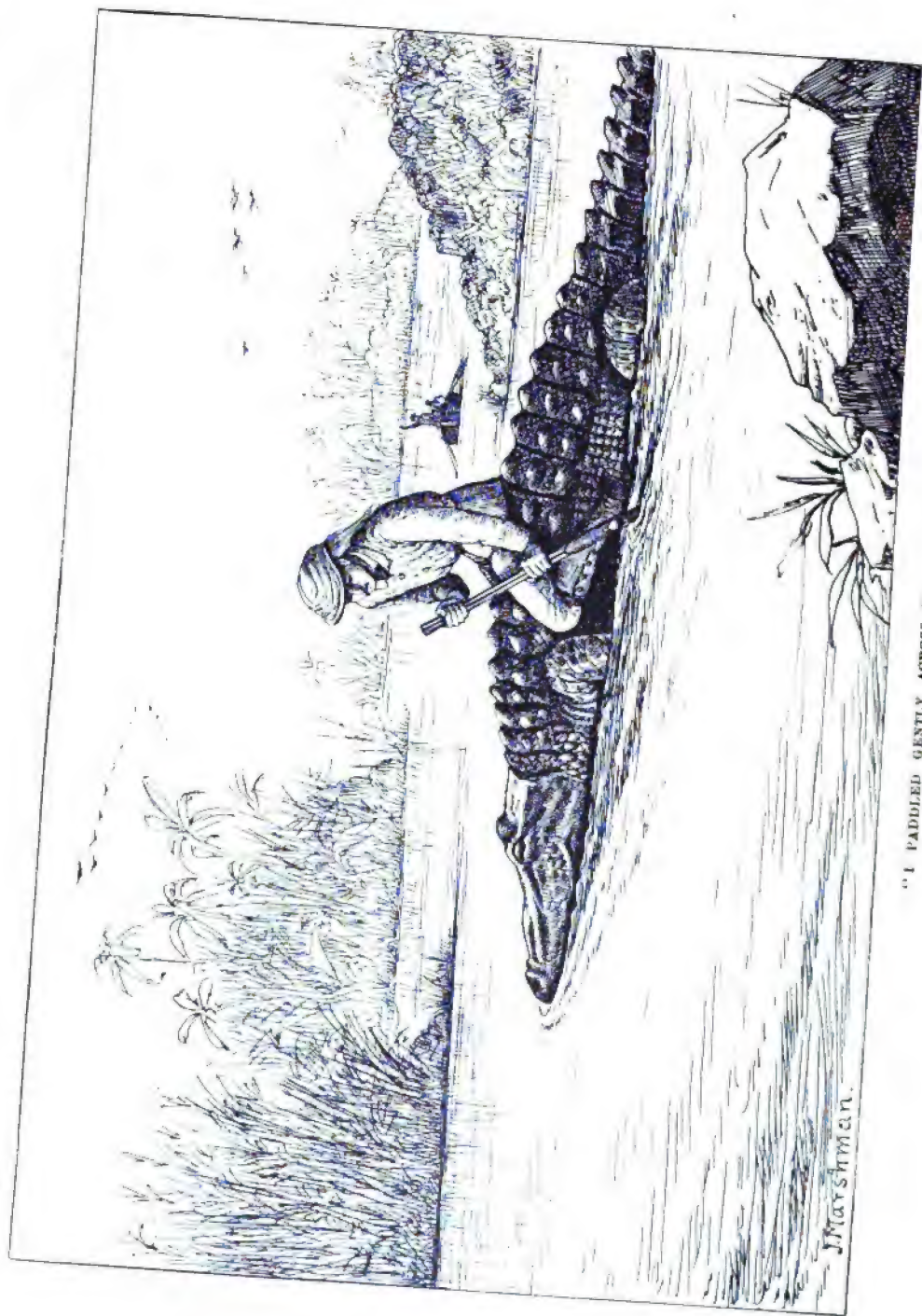
One island to my right hand seemed particularly well adapted to this purpose, and as I watched a crowd of turtles upon the bank of this island, I suddenly perceived a great commotion among them, as though they had been unexpectedly disturbed. The turtles betook themselves to the water as fast as their slow movements would allow, and from over the brow of the mound which these islands seemed invariably to have in their centres, I saw the stealthy cat-like tread of an animal of the feline species, which animal I quickly recognized to be the jaguar, the most formidable of South American animals.

I hid myself carefully beneath the parapet of stones I had constructed, and from between the chinks saw him deliberately dig away at the sand and devour greedily what I guessed were turtles' eggs.

Night came once more with all its horrors, which, as my frame became enfeebled with want and anxiety, seemed yet more terrible to me than the previous one, but sleep at last closed my eyes, and I was unconscious of all danger.

When morning came once more I was half furious with hunger and thirst. My fears of alligators and jaguars seemed to vanish in face of the immediate want of food wherewith to support existence, and I longed to wreak my vengeance upon one huge





"I PADDED GENTLY ACROSS THE STREAM."

cayman, who, from the very first, had never left the vicinity of the spot upon which I was a prisoner.

I hated the whole alligator tribe with a deadly hate, but my feelings towards this one particular monster approached the fiendish, and I bethought myself of some means of compassing his destruction, even though I should fall a victim to the rest of the hungry crew lying in wait to devour me.

At last a plan occurred to me, and I set to work to build up a small entrenchment about six or seven yards distant from the water's edge. I then took a couple of dead ducks, and stripping them of feathers, placed them just at the lap of the water and promptly retired behind my entrenchment, carefully concealing myself under its wall of stones. My one barrel still remained, and I watched with eagerness for any sign of the monster alligator. One hour passed, and yet another, and I began to despair of the success of my scheme, when at last, a slight stir in the water quite close to the spot warned me to be on the *qui vive*.

Gradually the detestable snout of the cayman projected itself from the surface of the water, and again I saw the odiously dull and expressionless gleam of his merciless eyes; "if when you have swallowed me, you foul monster," thought I, "I receive but as little mercy on the other side of the grave as I have received from you, I am indeed a lost and hopeless man."

For fully half an hour he remained facing me without a single motion on his part or on mine. I knew he could not see me, or he would long ago have moved farther away, but he was deep in guile as Satan himself, and wary and cunning beyond all belief.

At last I thought he seemed to get nearer to the bait, gradually and slowly he edged up to the ducks. As he got closer, his rapaciousness overcame his judgment, and I saw his vast jaws expand to their utmost width.

My God! what a terrible array of teeth, and what a chasm of a mouth yawned in front of me; however, I did not allow myself time for much observation, nor the alligator for reflection, but aiming from between a wide chink in the stones, I discharged my only remaining barrel straight down his gaping throat. A terrific splash of his vast tail in the water, a shower of briny liquid over my body, drenching me to the skin, and then all was silent and motionless as a graveyard.

There was the alligator facing me; his eyes still open with the same dull, leaden, meaningless expression in them as when he was alive and in full possession of all his faculties. I dared not venture

outside my entrenchment; within it, I was safe—without it, all was fraught with danger, unless perchance I had actually slain the monster where he lay.

Another night succeeded, and I was compelled to satisfy the pangs of hunger by devouring the ducks raw and uncooked—revolting all the while against my unnatural repast—but my cravings for food were too powerful to resist, and I cast all dainty and squeamish feelings to the winds.

Again morning put in an appearance. Another day was nearly spent, with its scorching sun from which there was no relief or shelter. I now felt sure the alligator was dead, and not only dead, but I was further convinced that his body was swollen and distorted from the effects of sun and water, and it even struck me that he seemed to be floated somewhat by the water. A shudder of fear and hope passed through my frame as I reflected that here at last was a means of escape from my terrible imprisonment. What if the creature not only floated, but would also carry a passenger on his back; a free passage across the stream for me, and a means of deliverance from this alligator-infested spot. How I blessed the chance which withheld me from emptying my remaining barrel at the ducks; but for this my fate was surely sealed. In no other way could I possibly have escaped with life.

I approached the alligator, and venturing ankle deep into the water, I seized him by his formidable tail, and slewing him round, found that it was as I had supposed. His body had become inflated from the combined action of water aided by a powerful sun overhead, and he not only floated, but was capable of carrying a much heavier cargo than poor insignificant me.

A big heart was, however, contained within my small body, and, getting fearlessly astride of his loathsome carcase, I paddled gently across the stream, using the butt of my gun as a paddle, and was on the point of grasping the gunwale of my boat when a loud cheer and the sound of oars greeted me from a bend in the stream. A party of officers had come out in search of me, and hearty were their congratulations and many their expressions of astonishment at finding me in so extraordinary a position.

My story is done. I have met, in my time, with many a strange adventure by sea and by land, and run many a hair-breadth escape, but never have I had so narrow a shave as when I accomplished a ride on an alligator.

Some Notes on Military Topography.

BY CAPTAIN WILLOUGHBY VERNER.

PART II.—SKETCHING WITH THE POCKET MAGNETIC COMPASS.



GENERAL SIR FREDERICK ROBERTS, when called upon, some ten years ago, to give his opinion on the subject of the instruction of officers in military topography, amongst other things advocated that they should be taught the plane table, which, he added, "is very easily learned, and which is invaluable as the basis of all eye-sketching."

No words of mine could express more clearly or more forcibly *why* instruction in the plane table is of such advantage to all officers. There can be no doubt but that nine men out ten (perhaps nineteen out of twenty would be nearer the mark) will never be required to make anything beyond the roughest road sketch, or possibly an outpost sketch. Hence, if they receive their first instruction through the medium of the plane table, they are started in the right track, and they will readily fall into the simple process of making a rough sketch with a pocket compass. I use the word "pocket" compass out of deference to the "Vocabulary of Stores," and by it I mean any sort or condition of magnetic compass, not larger than a big watch, and which has the cardinal points and degrees clearly marked on it.

That many men are now-a-days absolutely incapable of making a rough sketch in the manner I describe is no fault of theirs, but of the system which has started them in the false groove of the prismatic compass.

The new Drill-book, when dealing with the subject of outposts, lays down that officers ordered on this duty are to carry a magnetic compass, memorandum-book, appliances for making a rough sketch, &c. ; also that they are expected to "make a rough sketch of the ground in the vicinity, and ascertain the correct distances of prominent objects within range."

These instructions may be taken as indicating pretty clearly the class of work that is expected from an officer on outpost duty. Every expert military sketcher knows that nothing is simpler than to carry out this sort of sketch, but the point is, are all our officers properly instructed in the process? It is all very well to say that when they have been taught to sketch with a prismatic compass, "the other will come soon enough." Of course, it will come to the men who can draw, or who have an especial fancy to learn to sketch; but what I maintain is that this is beginning exactly at the wrong end.

My proposition is that the first instruction should be given in the process of plane-tableing and its natural outcome, magnetic compass sketching; and *then* those who wish can subsequently learn the use of any instrument they please.

If this scheme were to be carried out, a good system of "outpost sketches" would very shortly be introduced into the Service, and we would hear less of useless sketches being made by men who have no clearly-defined ideas of how to make a rough sketch, and who are put to needless vexation at being expected to do a thing they have never been properly taught.

With regard to the second part of the instructions, as to ascertaining the ranges, and which, I venture to state, I consider far and away more important than the "outpost sketch," it is evident that the officer who had the forethought to supply himself with any small and portable range-finder, such as the "Weldon," would find his work much simplified.

Besides these "outpost" sketches, there is one other class of sketch which can be reasonably expected from most men, and that is a simple "road reconnaissance." This would, of course, be executed as a "traverse," *i.e.* by observing the direction of the route followed, and pacing the distance between each change of direction. In the case of the outpost sketch, it might be more convenient to use a base line, or a base line combined with a traverse; and so in describing the method of sketching with a magnetic compass, I shall commence with an "intersected" sketch, or one carried out by means of a measured base line.

I shall now endeavour to explain the simplest way of setting about this class of sketching, which I may mention, although suitable for rough and rapid work, is a process which, with a little care, admits of the greatest possible accuracy being attained.

It may be as well to describe here the class of magnetic compass usually employed with the plane table. It consists of a needle

about 4 inches long, called a "declination" needle, which is pivoted in a narrow longitudinal box about $4\frac{1}{2}$ inches long and $\frac{3}{4}$ inch wide. The north end of the needle is provided with a small cross-bar, and an index line, cut on the middle of the end of the box, enables the compass to be "set" by turning the board till the needle coincides with it. In large surveying operations, the needle used is sometimes double this size. This box works in a slot on the under surface of the board, by which means it can be drawn out or pushed in, as required; sometimes the compass is laid on the board, with the edge of the box coinciding with a meridian line ruled on the sketch. When such a compass is not available, any magnetic compass will do; and as a matter of fact, many of the tables supplied for the use of the army are not provided with plane-table compasses, and hence are commonly used with a pocket compass.

The appliances required for sketching without a plane table (in plane-table fashion) besides the magnetic compass, are:—

1. Any flat surface, such as a piece of millboard or piece of wood, about a foot square.
2. A straight edged piece of wood about 9 inches in length.
3. A clinometer to measure slopes and gradients.

These are necessities; the paper can be fixed on the board in divers ways. A couple of pieces of string tied round either end is good enough; but for comfort, a few drawing pins are better, and also a common pin—a steel one with a glass head, if such can be obtained—to mark the position of the observer on the sketch from time to time. Having decided how the portion of ground will best fit upon the board; in other words, having selected a point on the paper for commencing work, which will ensure that the sketch shall not at any time "run off the board," stick the pin into the sketch at the chosen point, and commence operations. Let us suppose, first, that a portion of ground is to be sketched by means of obtaining intersections from the end of a base, and that the pin has been stuck in at the end of the base where we are about to begin work, and which we will call A.

Now, it is obviously a great advantage if this point is so situated that a good view can be obtained from it. And it is further a great advantage if some natural object happens to be in the vicinity, such as a bank, wall, paling, or anything that will permit of the sketching board being laid upon it so as to raise the sketch as near the eye as possible. This is merely a luxury and meant to save the muscles of one's back, which occasionally suffer when the

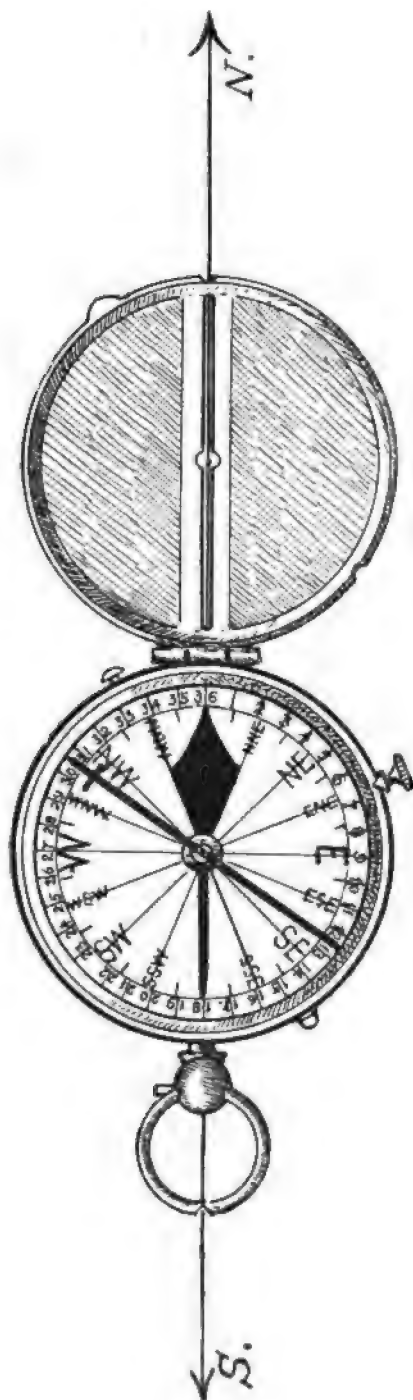


FIG. 1.

sketch has to be laid on the ground; the fact being that any device whereby the conditions of the work are approximated to that of the plane table (where the board is raised 3 feet 10 inches from the ground) is a distinct gain.

A most excellent makeshift, but one, of course, which could not be depended upon always, is to use one of the light cane "shooting seats" as a stand for the board.

The board having been placed so as to conform to the piece of ground to be sketched as already described, the compass is laid down somewhere on the "hither" side of the end of the base where the pin is stuck, and as soon as it has settled, the N. and S. points are marked off and a line clearly ruled on the sketch to show the position of magnetic north, care being taken to draw a distinct arrow head at the north end of this line. The compass is then replaced on the line and left in its position, and an eye is kept on it so as to ensure against the possible accident of the board being shifted, which would of course vitiate any observations (*vide* Fig. 1).

A round of observations is now made of all the points which it is considered desirable to fix, commencing, of course, with the base AB, and likewise ending up with a second obser-

vation of the direction of the same, as a safeguard against the board being shifted accidentally. The direction of each point is observed with the straight-edge, and a light pencil line ruled to mark this. These lines, as most people know, should not be ruled from the point of observation, but lightly touched in somewhere about where the distant objects are reckoned to be; for example, in marking the direction of a church supposed to be a thousand yards distant, a light line should be ruled, commencing at 800 and terminating at about 1,200 yards from the position of the observer. Along this the word "church," or the conventional sign for the same, should be pencilled so as to ensure against any subsequent mistake as to which line ran to the church. I call attention to this trivial rule, as it is one of the commonest sources of error in all triangulations or intersections, and the objectionable habit in which some men appear to revel, of ruling coarse dark lines radiating from either end of their base, like two opposition spiders' webs, is absolutely incompatible with accurate work, since it causes endless confusion.

Beginners at this class of sketching at times experience some difficulty in drawing the lines along the edge of the ruler, indicating the direction of objects, since it happens often enough that only one hand is available; the other being occupied in holding the board "set." In such a case the best plan is to make a clear "dot" with the pencil-point to indicate the direction when the ruler is laid true, and subsequently draw in the line either by eye, or safer, by ruling it. With a little practice it will generally be found that the line can be lightly touched in without shifting the ruler.

Having concluded the observations at the end of the base A, the clinometer should be brought into use to ascertain the angles of elevation and depression of various important objects, and also if possible to fix a few "reference points" for future use. These data should be likewise pencilled on the sketch. The next thing is to draw in neatly by eye, any roads, fences, buildings, or other "detail" adjacent to the position of the sketcher, also any contours, "form lines" or other guides to the general "run" of the ground.

The base has now to be measured. If on level ground this will usually be paced, but under most circumstances it is far preferable, both for comfort and accuracy, to measure it by the aid of a range-finder. The obvious advantage of using the latter is the freedom of choice of base conferred by it, for the ends of

the base can be selected solely with regard to the view obtainable from them, which is a matter of great importance when sketching in the manner I describe, also it is a matter of complete indifference to the range-taker how broken the ground is between the ends of his base. Last year, as an experiment, I selected a base running across a deep and broken valley, and took the range from either end of it, with the result that the mean of the two observations was within 5 yards of the correct distance as measured on the 25-inch Ordnance map, which was at any rate accurate enough. In this instance, it would have been impossible to pace the base, as some of the slopes were over 20° . The range-finder of course, although a valuable adjunct, is by no means a necessary part of the equipment.

It is a good plan to rule three or four "meridian lines" each about four inches long on opposite sides of the sketch. The object of this is to provide a point where the compass can be placed so as to be always on the hither side of the sketch, when "set." Experience has proved to me that it is far easier to keep an eye on the needle when it is immediately below the eye, than when it is on the far side of the board, and it must be remembered that the accuracy of the work depends not only on the care with which the board is "set," but also on its being kept "set" during the observations. On arrival at the other end of the base, which we will call B, the board is placed on the highest natural object available, and "set" to correspond with the ground. This is done by shifting the pin from A to B, and laying the straight-edge along the base BA drawn on the sketch; the board being then turned until the straight-edge is directed on the point A on the ground at the other end of the base.

The compass can now be placed on one of the meridian lines ruled on the paper; this is not absolutely necessary, as the board is already "set," but it is a useful check, especially in windy weather, when a light board is very apt to be shifted slightly. With the plane table this is not usually done, since it is rigidly clamped to the tripod when once "set."

The second set of observations are now made, and the positions of all the required points duly intersected. In observing the direction of any object with the straight-edge, it is usually quite sufficient to simply align it on the distant point, but in the case of a regular "intersected" sketch, such as I am describing, to ensure absolute accuracy, it is decidedly best to test the correctness of each alignment by stepping back a few paces from the

sketch, and, closing one eye, holding the pencil vertically, to see whether the straight-edge is truly laid. This is a well-known process in "eye sketching," and an illustration of it will be found in the Text Book on Topography.

Let us suppose now, to thoroughly illustrate the case in point, that upon arriving at the "B" end of our base, there was some local attraction which rendered our magnetic compass temporarily useless. This would be detected the instant we attempted to "set" the board, because it would be found that when the needle coincided with the meridian line, the ruler laid along the base line BA on the sketch would not point towards the "A" end of the base. Now with the prismatic compass this error would in all probability not be detected, possibly until the end of the day's work, but in any case not until considerable time has been wasted in taking a series of observations and plotting them with the protractor on the sketch. In our case, however, the error is instantly noted and as instantly eliminated, for the board is set solely with reference to the base; in other words by the "back angle," the vagaries of the compass being ignored.

The sketch now is proceeded with in the usual fashion, the board being held in the left hand in such a manner as to admit of its being easily turned and "set," either by means of the straight-edge laid from the position of the observer to some defined object (both these points being marked on the map), or more ordinarily by means of the compass.

Opinions vary as to the best way of holding a board when field-sketching; all the same it is an important element of success. There is one golden rule, and that is *never* to have the board strapped to the person, as was the absurd habit taught and encouraged at the military schools only a very few years ago. The orthodox Sandhurst or Woolwich sketching-case had a strap fastened in such a manner that when passed round the neck it permitted of the board being retained in a horizontal position, resting against the chest of the sketcher. This was most convenient, as affording a shelf on which to deposit the prismatic compass, protractor, &c., but was utterly unworkmanlike for the simple reason that it only permitted of sketching from nature in one direction. In other words, the board could only be truly "set" to the ground when the sketcher faced one point out of the thirty-two points of the compass. It stands to reason that when a man lashes his board to himself in this ancient style, and sketches along a road due north, if he turns to his right or left to

draw in any detail east or west of his line, the board must turn with him, and he is forced to draw objects at right angles to what they appear to his view. Now, with all possible deference to the artistic powers of our officers, this is a thing that nobody can attempt, no matter how expert, without sooner or later coming to hideous grief. This foolish practice of tying the sketch to the sketcher is one more of the crimes for which the prismatic compass is directly responsible, for as long as a man simply takes bearings with a compass and plots them with a protractor, the awkwardness of the custom is not so apparent. These mechanical processes are so distinct from any real "field-sketching" that they can be carried out almost anywhere and without the operator feeling much inconvenience, hence the absurdity of the practice only becomes apparent when some "detail" has to be drawn in by eye.

Some men assert that they have become so accustomed to hanging their boards round their necks that they experience no inconvenience from doing so. To these I would merely reply that good portrait painters do not endeavour to show their proficiency in wielding the pencil and brush by causing their models to stand on their heads, and then drawing them "right side up"; and this is just what a man tries to do who holds his board the reverse way to the "lie" of the ground, and then attempts to sketch in the detail upside down.

Starting from the point that the sketching-board should invariably be carried so as to permit of its being turned in any required direction. The question is, which is the easiest position? The answer undoubtedly is, whatever approaches nearest to the action of a plane table top on its stand. Now the Cavalry Sketching-case with its wrist-strap working on a pivot may be looked upon as the nearest approach to the plane table, hence any makeshift to render the sketching-board capable of being similarly used is what is required. When the materials are at hand, the best way is to attach a short strap or piece of web with a buckle to the centre of the bottom of the board by means of a brass screw or copper nail. These latter must be fixed so that the board can be revolved when the strap is held tight. The board is then laid on the palm of the left hand, and the strap secured round the wrist.

Another method, and one easier to carry out, is to bore a couple of holes through the centre of the board about an inch apart, and to reeve a bit of string, boot-lace, or thong of leather, through these, tying the two ends together on the lower side of the board

so as to form a loop large enough to pass the hand through with ease. When this has been done, the board is revolved until the slack is taken up and then laid on the palm of the hand as before.

When no such adjuncts are available, and the board is of a convenient size, the best plan is to rest it on the fore-arm, as



FIG. 2.

shown in Fig. 2, grasping it firmly with the left hand and pressing it against the elbow joint and body. This is, perhaps, the best way to hold a board in a high wind. When there is no wind and the hand is steady, nothing is so good as resting the board on the

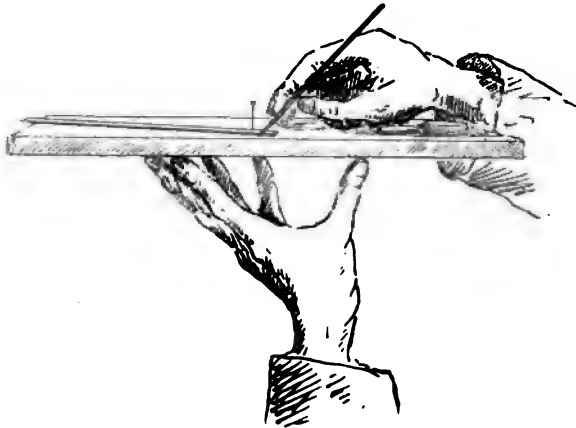


FIG. 3.

finger tips as shown in Fig. 3 ; the wrist enabling it to be turned gently in almost any required direction. This position can be varied

by letting the board rest on the palm of the hand, and is particularly convenient when it is desired to draw in some "detail" or observe the direction of any object off the main traverse line. All compasses, whether with a bar-needle or a card, have an aggravating habit of oscillating for some time before they come to rest. This can be to some extent reduced by using the "check stop" with which most are fitted; but when sketching with the compass laid on the board, the best way to make it settle rapidly is to give the board a gentle tilt at the moment that it is judged to be about pointing to the north, and then bring it level once again.

With the board held in one of the positions as already described the "detail" can be rapidly drawn in by eye, and the facility for doing this will be found to increase every hour, because the eye and hand become imperceptibly accustomed to work together in thus delineating the features of country seen in front of the observer on a board, truly "set," held in front of him. The warping process of prismatic compass sketching, where every object in nature has to pass through the media of a prism and figures and be reproduced through the media of a protractor and more figures, has been eliminated. What wonder is it that men become so desperately occupied with this time-honoured process, that they frequently forget to draw any detail at all, and come home with nothing but a weird-looking geometric figure which requires hours of work and deep study of the 6-inch Ordnance map to develop into even the semblance of a "field-sketch" of the ground.

I now come to the difficulties which may be expected to be encountered when sketching in the way I advocate.

Of course, there are drawbacks to every system, and more especially any one that is of itself merely a makeshift for a more complete thing, such as is this class of sketching with reference to the plane table.

The difficulties which are to be met when sketching with a common compass are two, and make up for their small number by their gravity. They are—

- (1.) Difficulty in placing an ordinary magnetic compass "true" to the meridian line ruled on the paper.
- (2.) Constant liability of the compass when thus placed to shift slightly or slide off the sketch altogether.

It is pretty clear that either of the foregoing mishaps would be fatal to the accuracy of any work.

Many and varied were the expedients I tried to counteract these two very serious defects. At first I went in for attaching the

compass to the board by various means, such as a vice-grip and screw, a clip, &c. These were satisfactory so far that the compass could be fixed and was not liable to slip; but now a new difficulty arose. I have already stated that to obtain good results from this "plane-tabling" without the plane-table legs, if I may be allowed the expression, the compass must be always immediately below the eye of the draughtsman when he is engaged in observing the directions of objects. Hence, any system of attaching the compass was inadmissible, since, as the board was turned so as to coincide with the ground, the compass, when fixed, was necessarily turned with it, and was thus as often as not on the wrong side of the sketch.

The problem was to devise some means whereby the compass could be fixed sufficiently securely so as not to slide and yet be capable of being instantly shifted when required, so as to be always on the side of the sketch nearest to the eye of the draughtsman. With this idea in view, I tried spikes on the bottom, after the manner of a cricketer's shoe. This was effective as far as it went, but fatal to the sketch. A sucker was my next plan, after the fashion of a railway lamp or hat-peg; but this failed ignominiously, since the surface of the drawing paper was neither smooth nor rigid enough to permit of the sucker acting. Also the latter made a rare mess of the sketch.

Lastly, I adopted the expedient of a simple friction ring of india-rubber partially countersunk into the bottom of the compass. Practice has shown that this prevents the compass being shifted by wind or by shaking or tilting the board within reasonable limits. To those who wish to know *how much* this friction ring retards the compass from shifting, I would suggest the simple experiment of taking a common red india-rubber ring and placing it on a smooth surface with a coin on the top, and then placing a similar coin alongside *without* a ring below it and observing the effect produced by tilting or shaking the surface on which they rest.

Thus was my difficulty solved of obviating the tendency of the compass to slide. The other objection was now soon overcome by the simple expedient of filing a notch in the ring forming the handle, and cutting a slit across the lid, which permitted of the compass being instantly laid "true" along any required line, as shown in Fig. 1. The question now was to adapt these improvements to some form of magnetic compass that would be generally useful under all circumstances.

So far I found myself in possession of a compass which I could use with the utmost convenience for plane-table work, and for field sketching. It remained to adapt it so that the bearing of an object could be taken *if required*, for I will readily admit that such an eventuality will often arise on Service, although I steadfastly decline to recognize the necessity for making it a practice to habitually sketch through the media of magnetic bearings observed and plotted, with their inevitable errors. Since the compass I required was for general use, I objected to any form of prism and its inevitable reversely graduated card, useless for other

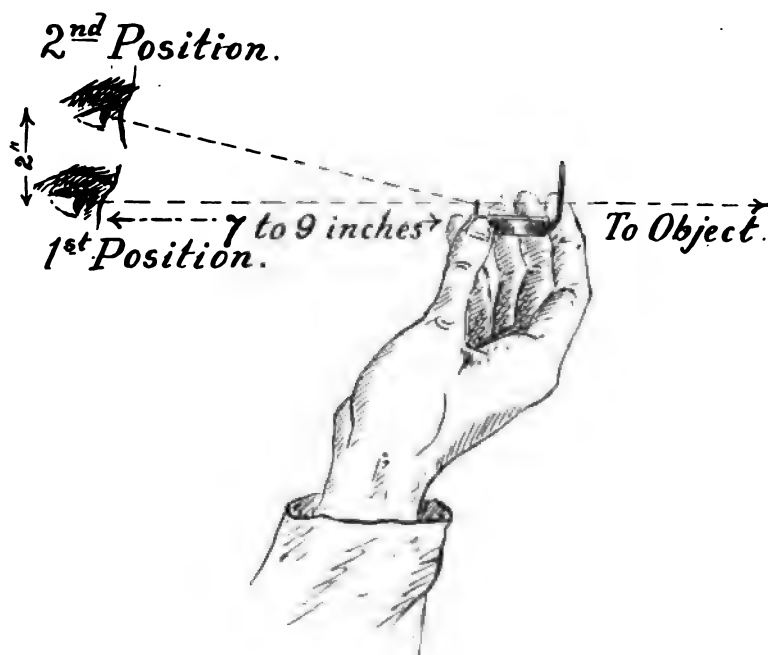


FIG. 4.

purposes. However, by graduating the outer edge of my compass card in the usual manner, from 0° to 360° , and by making it "cockle" up like the rim of a saucer. I found it was perfectly feasible to read a bearing from the card itself, using the notch in the handle and the slit in the lid as a back-sight and fore-sight respectively.

In order to vindicate the accuracy of this apparently rough process, I have caused many experiments of rounds of angles to be thus taken and compared with similar rounds taken with a prismatic compass, checking both by a theodolite, and with a result

that the magnetic compass when used in this way proved itself to be just as accurate as the prismatic. In a long day's work, executed by an "expert," the observations made with the two instruments were never more than 1° different.

In using a magnetic compass in this matter, care must be taken not to place the eye close to it (after the manner of a prismatic compass). If this be done, considerable difficulty will be experienced in reading the graduated edge of the card.

The correct method is shown in Fig. 4. The compass is held about 7 to 9 inches from the eye, and the chin is lowered until

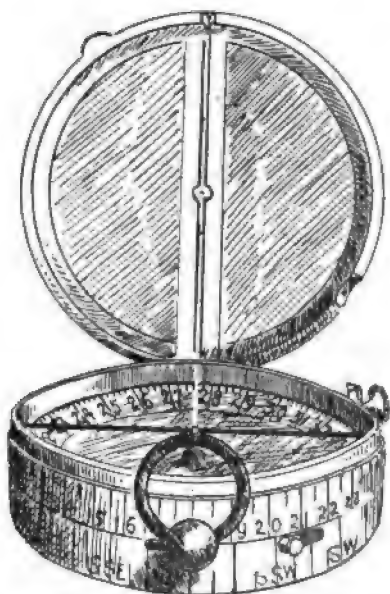


FIG. 5.

the head is in the "First Position," as shown in the sketch. The direction of the object is now observed by aligning the notch in the handle, and the slit in the lid on it. To read the bearing, the chin is raised until the head is in the "Second Position," the eye being thus some 2 inches above the first position. As soon as the eye is sufficiently high to see the dot on the centre of the compass over the notch on the handle, the bearing is read from off the graduated edge of the compass card. A "lubber's point," or fine white line, is provided for this purpose, but in practice it will nearly always be found that the reflection of the slit in the lid throws a bright white line on the glass, which cuts the graduated edge at the

point required. Care must be taken to see that this bright white line also cuts the centre of the compass, as it always will do if the latter be held truly horizontal. It is a good plan, after reading the bearing, to lower the eye again to the first position, so as to make sure that the compass has not been moved during the process. The operation, although somewhat difficult to explain, is most simple in practice, and one that can be learnt off-hand. Fig. 5 gives a view of the compass as it should appear to the observer when his eye is in the second position, and he is about to read off the bearing of the object. It has been impossible to delineate the white line reflected on the glass with anything approaching to the brightness it usually exhibits, for, in order to do so, it would be necessary to make the compass card darker, and this would render the graduations on it indistinguishable.

In order to make the graduations on the edge of the compass card as legible as possible, the "noughts" have been dropped, thus 10° , 20° , 30° are shown as 1, 2, 3, &c. Also, for the same reason, each graduation of ten degrees is only sub-divided so as to read to two degrees. In practice, it will be found that often the white line cuts midway or fills up the space between two of the graduations, in which case the number between them is, of course, taken, thus a bearing between 276° and 278° would be taken at 277° .

In spite of what some theorists may urge, this is amply accurate enough for all military sketching. I never could see the force of having an instrument which read to half a degree when the angle thus taken had to be roughly plotted with a small and narrow protractor that very probably introduced an error of a degree.

I have on other occasions gone into the question of the amount of error introduced by observing a bearing 1° , 2° , or more out of the true direction, so will not allude to it here beyond reiterating that a great deal of unnecessary fuss is made about such matters, taking into consideration the class of field sketches and other work that is required for military purposes. Of course, for a *survey*, either military or civil, there can be no limits to the precautions taken to ensure absolute accuracy, but that is an entirely different matter.

The Tales of Ensign Steel.

(From the Swedish of J. L. RUNEBERG.)



XII.

THE SOLDIER LAD.

My father was a soldier young, as handsome as could be ;
At fifteen years he shouldered arms, at seventeen man was he :
 His world entire the field of fame,
 Rejoicing wheresoe'er he came,
 In hunger, frost, in blood and flame—
He was my father, he !

A child was I when he marched off, departed peaceful days ;
I recollect his haughty step, I dream of him always :
 His hat and plume, his sun-burnt hue,
 The shadow which his eyebrows threw,
 Can never vanish from my view,
So steadfast was my gaze.

And when our army, facing round, advanced, the news was brought,
How brave he was, how strong he was, how stubbornly he fought ;
 And then how he a medal gained,
 Then two, it soon was ascertained,
 “ How happy it would be to stand
Beside him ! ” thus I thought.

Then winter fled, with lusty spring the snowdrifts disappear ;
Then news was brought : of glorious wounds is dead thy father dear !
 I cannot what I felt explain,
 Was proud, but soon was sad again ;
 Three days my mother wept and then
Was laid upon her bier.

Beside his standard fell my sire on Lappo's bloody plain ;
The first time, it was said, he blenched—he ne'er did so again.
 For King Gustavus and his land,
 My grandsire perished sword in hand,
 His father died at Willmanstrand ;
Was one of Charles's men.

Such were my forefathers : for aye they bled, from sire to son ;
Indeed they lived a gallant life, a glorious death they won.
 Oh, who would creep, an aged thing !
 No, take the field in life's warm spring,
 And die for Honour, Country, King ;
'Tis thus it should be done !

I'm nothing but a beggar lad, by other folk am fed ;
No home or relative have I, because of parents dead
 But grumbling is not my desire,
 I daily grow up higher and higher ;
 The son of such a doughty sire
Can never want for bread.

And should I live till I am grown, and fifteen years complete,
The self-same hunger, self-same strife, and self-same death I'll
meet :

Where bullets sing and thickest fly,
I also shall be present, I,
The same career to seek and try ;
My father's life repeat !

H. S.



Wanderings of a Man Artist.

NEW SERIES.

THE RUSSO-TURKISH WAR.

By IRVING MONTAGU.

CHAPTER VII.



It has been said that in extreme cases the marrow freezes, and that each particular hair which doesn't stand on end like the quills of the fretful porcupine turns white as driven snow. Surely circumstances would have justified this, since no condition of personal jeopardy could well be worse than that in which we were now placed.

Our horses had become utterly scared and unmanageable, so helplessly mixed and entangled that some moments elapsed before we were again on the way. Our stoppage had given the gunners a steadier aim. Another all-too-familiar boom—a prolonged screech—and then the crash of a shell, which seemed to lift us from our seats and throw us and our already terrified steeds into, if possible, greater confusion than before. This last shot had the effect of so startling the horses that they dashed off in headlong flight, taking us providentially round a corner, and so out of sight of the enemy; but the most curious part of the story has yet to come.

Arrived at Zimnitza, we decided on remaining there for the night, and crossing the following morning the now historic bridge of boats into Bulgaria. This being the case, I went in quest of some necessaries from my portmanteau, which had served as a back to my seat in the drosky. Imagine my astonishment when I found it torn from end to end, and its contents twisted

into a confused mass within. No wonder I sank back as I have described, at the moment of that terrific shock, the cause of which was now all too apparent. The shell had struck home *rather* closer than I, at the time, had any notion of, my life having been saved by that well-packed valise.

On examining matters more minutely, I discovered the splinter of the shell had struck it obliquely, without touching the drosky itself. One side was in ribbons—leather, straps, and buckles being mixed in picturesque confusion, with broken brushes, flannel shirts, smashed pots of Liebig's essence of meat, and broken bottles of Dr. Collis Browne's chlorodyne—indeed, that smashed portmanteau is still in evidence, a household god, enshrined as a memento of yet another providential escape.

At Zimnitza we were in the thick of the excitement which characterizes the fringe of war—indeed, I don't remember, in a long experience, anything so unique as the aspect of that little Roumanian town.

To begin with, from the heavy rains and recent overflow of the Danube, we found ourselves and horses in many places knee-deep in mud, besides which the place was, as Pat would put it, "Not itself at all—at all," since an army of Jewish and other sutlers had pitched tents innumerable round about and in and out its few irregular streets. Bell tents, square tents, long tents, tall tents rose before you, like the towers of Babel which they were. Then there were squat tents built over deep holes cut well down into mother earth, together with others of every imaginable colour and shape, while towering above all was a mountain of canvas, a huge circular tent, which loomed down like a giant amongst pigmies on the rest of those canvas dwellings. Such, when we arrived, was poor little Zimnitza; it had quite lost its own identity.

There, too, at this time, were to be found camp-followers of every imaginable kind and nationality, determined (as my friend the spy at Giurgevo had put it). "to make hay while the wind blew." In this canvas land, curiously, there were few things, indeed, unobtainable—that is, so long as filthy lucre was abundantly forthcoming; and certainly with Russian officers there seemed no stint of it.

Before crossing the Danube by the pontoons, which thrown from island to island linked us with Bulgaria opposite, many things took place here which necessitated delay, and which would have been fatal to pockets not very well lined.

Take, for example, the main street; here are some mud steps

leading down into a cavernous-looking square hole, say 25 by 20 feet, over which a large tent awning is tightly fitted; much merriment is going on here amongst those who are not eating. It is not so ill lit an apartment, after all, for the great square canvas pitched over it seems to throw a soft lantern light on the whole. Outside the entrance, in tar, on a whitened board, are the words "Hotel Victoria," and below a long list of the goods obtainable therein. Opposite is a rival establishment of a similar description, the "Restaurant de l'Empereur"; here is a tobacconist's, there a dram-drinking saloon, where anything in the shape of a nip, from vodki and raki to Scotch or Irish whisky and champagne, may—at fabulous prices, of course—be had.

We are on our way to the front! Ay, and who can tell—it is more than possible we may never return. So let them "make hay while the sun shines," and let us be merry while we can. Once across that bridge of boats, and we shall have other tales to tell.

How is this? Officers, non-commissioned officers, men—aye, and women, too!—*all* are hurrying round canvas corners, in one direction, down the main street of this queer conglomerate of tents and huts. Outside the great round tent of which I have spoken a huge bell is jingling loudly from a pole. What can all this commotion mean? Are the faithful Muscovites off to prayer? Is it a summons to kirk?

Alas! no; it is the performances at the "Cirque de la Guerre" which that bell is proclaiming. The charges are as high as the performances are doubtful; nevertheless, the enterprising managers have thought it worth while to bring several veritable spotted circus horses with them, to say nothing of acrobats and trapezists, and a Mr. Merryman, got up as a burlesque Turk, whose antics in the ring produce from time to time roars of laughter; then there is our *old* friend (oh! yes, I am right in saying *old*) the *young* lady, whose step is not so elastic as it used to be, and with whom whitening and rouge do much towards the outward seeming of youth, as she trips it on a bare-backed steed, to the tune of several French horns and a fiddle, that bony high-stepper going at a circus jog-trot round the ring.

Poor *old* girl! her day has passed; her blandishments are over. She now serves only as padding to the better things which come between; for here we have, in a perfect shower of applause, "La Belle de la Guerre" Katinka, a lovely little *danseuse*, who whisks about with wondrous rapidity on a frisky arab, and who is, in turn, followed by the obstinate donkey which no one but Mr.

Merryman can ride. They are succeeded by the giant and the dwarf, the hairy woman (with a strong suspicion of the Calmuc Tartar camp-follower about her), and no end of fun besides, which continues for about two hours, much to the pleasure and intense amusement of big muffin-capped and helmeted Russians, who, like school-boys at a pantomime, roar at all they see, and who,



equally like school-boys, feeling how brief is their holiday, determine, come what may, to enjoy it to the full before they go back again to that humdrum school-of-arms to practise—killing?

Strong drinks? Oh, yes, they were tremendously in demand in this strange settlement; and no wonder, since the water of the Danube was our only alternative, which at this time was literally weak mud, through which it was impossible to see.

Those sutlers were always wide awake to turn an honest penny, and amongst other things they let furnished and unfurnished apartments. These lodgings were so conveniently constructed

that they brought them in no end of dollars for some considerable time for the purposes of the quick, after which they could, if required, become the freehold of the Dead. The design was simple; to all intents and purposes they were common graves, about the ordinary size, some four feet wide by eight long, dug the usual depth in the clayey soil, the sides battened hard by the digger's shovel, a piece of old carpet or some straw, laid at the bottom, answering the purposes of mattress, palliasse, and feather bed alike. The opening, save where the space was left for the weary one to descend by a ladder, was generally roofed with brambles or canvas, which in turn were soon covered by mud or snow.



So much for the *unfurnished* apartment; the *furnished* ones, which let at a considerably higher rental, differed in this fact only, that they had three or four boards of the grave-digger type to line them and prevent the damp, cold earth from throwing death-like chill to one's marrow, and to give to those quarters a more *homely* and comfortable character. I paid 20 francs for one of these the night of my arrival at Zimnitza, and thankful I was to get it, and when I ventured to suggest that the terms were slightly excessive I was assured that, had it been snowing or raining, it would have

been considerably more ; indeed, only the night before, a brigadier had paid 32 francs for the same accommodation, and had thought himself fortunate too. However, grave or no grave, we slept soundly enough in those queer quarters, and woke up the following morning as fresh as circumstances would admit to continue our journey to Plevna.

Imagine if you can a low-lying pontoon bridge, say four times the length of London Bridge, stretching from one island to another, and then in one long line across the Danube to where the picturesque Bulgarian town of Sistova stands, where its trim white houses, with their green shutters, its many mosques, and its luxuriant foliage combine to make a picture worth remembering.

See the hurry, scurry, jostle, and confusion that continually presses onward either to the front or to the rear, one everlasting stream of winter stores going over to the Turkish side. Now the bridge is one blaze of bayonets, glittering in the morning sun. Then hay-carts in dozens, provision waggons, ambulance stores, and batteries, follow in quick succession. Ox teams block the way in one part, while impetuous drivers of four-in-hand arabas yell, hoot, and scream themselves hoarse, as Cossack teamsters prod their cattle to a quicker pace with long steel-pointed ox goads to make way for them. Again, the other way come long irregular lines of Turkish prisoners, smoking the cigarettes supplied them by their Muscovite captors, and looking as philosophical as possible under the circumstances ; next comes a rumbling ambulance, with small red crosses on its lamps and big ones on its tarpaulin sides. Here are messengers bringing all sorts of news, to all sorts of people, from all sorts of places. In short, it is war, war everywhere, in whatever direction we look, and we see and feel that we are in the thick of those great events, which will make a special page in the history of the nineteenth century.

Yes, there is something about that bridge of boats which goes deeper than the surface—it is the bloody link between Christianity and Moslemism—it is the great bolt in the chain of events which connect the crescent and the cross in deadly strife ; and if it be terrible by *day*, how far more terrible is it at *night* (for this work goes on without one moment's intermission throughout the twenty-four hours), how far more terrible then—when lighted with innumerable lamps, it looks like some fiery-spotted snake, wriggling and swaying as those heavy burdens cross its back. Then, though the traffic continues, all is, as if by common consent,

quieter, occasional groans emphasizing the scene with a touch of terrible pathos, as some poor wounded fellow here and there cries out in his agony, as he is being carted away in requisitioned Bulgarian bullock waggons across that so lately disputed boundary, to the hospital at Zimnitsa.

Next will pass a troop of Cossacks, and as I stand alone in the darkness, watching the ever-shifting stream of humanity, it looks, for all the world, like some grim procession of lost spirits crossing the Styx, accompanied, as I have said, by the hoarse hooting and yelling of brutal drivers, and the piteous moans of those agonized by pain. Yes, if it is possible to imagine it, it was like a weird vision of the Inferno as those great black clouds,



scudding fitfully across the moon, threw the worried earth below alternately into sickly relief or inky darkness.

The ordinarily charming little town of Sistova was not by any means in good form when we reached it. Its houses were shelled and dismantled, the Turkish quarter having been completely looted and gutted after the retreat by the Bulgarians; even the mosques were desecrated. Its hospitals were overcrowded, the dead and dying in many cases being relegated to half-ruined private houses and empty shops; and when one remembers that no less than 22,000 draught horses were actually done to death by over-exertion and mud, apart from those killed in battle, and lay decomposing in the open between us and Plevna, it can be easily imagined that in a place where, at the best of times, drainage was conspicuous by its absence, the stench was frightful.

Indeed, in some parts the place assumed quite a grotesque aspect, which even impending fever could not dispel, since officers, men, and correspondents alike, when it was exceptionally unbearable, tied camphor bags to their noses by means of handkerchiefs which they fastened round their heads, and which gave them the curious appearance of a great array of warriors with the toothache.

It was at Sistova I last saw poor McGhan of the *Daily News*, who died, it will be remembered, not long afterwards at Constantinople. He gave Grant, Coningsby and myself a little surprise one evening.

Millet and he had conceived the idea of sending us formal invitations to a dinner party which would have done credit to Mayfair, with, however, a comical little postscript in the corner as follows: "Special dessert will be provided." The hut which they had, had been specially swept out by McGhan's man for the occasion; in fact, a general clear-up had been gone through for our reception.

It was a wonderful arrangement. An old newspaper did duty for a table-cloth, on a dummy table improvised by a packing-case turned upside down. The salt-cellars were the paper cocked hats beloved of our childhood, duly placed at the respective corners of that festive board; paper napkins were also provided.

At this distant date, I forget what the *very doubtful* good cheer was; but it was, I am sure, the best that could be procured. Then came the great secret, "special dessert." A square tin box was produced, and in dead silence placed in the middle of the table; it contained about two ounces of—well what? Why, of all luxuries in life, British bird's-eye, which to smokers who had long ceased even to dream of such a thing was a treat indeed. It had been, I understood, a little present from a Russian officer, which that most kindly fellow, and best and ablest of correspondents, wished us to share.

I remember, too, there was an amusing Yankee general in Sistova while I was there; whether he was deputed to watch the war for his country or not, I do not know. Nevertheless, he was a man full of "wise saws and modern instances."

One day I made some reference to the clumsy and long-drawn-out way in which Russian guns were taken up to the front. True, the roads were frightful, the mud being simply beyond all description, but still I ventured to suggest that the progress of that artillery was in many instances lamentably slow.

"Wal," said he, in broad Yankee twang, "I think you're

right; they've been at it for months, and there's very little promise of increasing speed."

"How long, now, do you think it would take Britishers to accomplish the same end?"

Actually I had not the slightest idea, but I was not going to collapse before my Yankee interrogator; so I suggested, as an improvement on the then state of affairs, that it would take *us*, say, about a fortnight or three weeks.

"By the way," I continued, "how long do you think it would take the Americans to achieve a similar result?"

"Americans? Oh, that's a *very* different kettle o' fish. Americans?" and with this he took out his watch, and glanced at it several times in meditative silence. "The Americans? Wal, I should say, as near as I can calculate, somewhere between five-and-twenty minutes and half an hour," and with this he turned on his heel with a self-satisfied air, leaving me to digest his not very flattering comparison.

Mud! Why, the word is inadequate; it was a perfect sea of mud, a never-to-be forgotten Slough of Despond. Then the rain; it was not ordinary rain—it came down literally in sheets; and the terrible necessity of the whole thing, too, was so evident. There was no waiting till it had abated; no halting till the overflow of the Danube had subsided; no chance of going into quarters till the roads became even reasonably passable. An army of many thousands of men may not be left in the lurch with impunity; in a very short time-besiegers and besieged would be in the same predicament. The Russians were as pitilessly circumvented thus indirectly by mud as the Turks were by that glittering fringe of Muscovite steel.

Look at that never-ending line, team after team, of supply waggons as they cross the undulating bridge of boats and essay to climb to higher, dryer ground from the river side; it is for all the world like a plague of flies, striving in vain to stem the tide against a torrent of liquid cocoa. It reaches the axles of the waggons and the horses' girths; men, up to their waists in it, belabour the poor brutes thus hopelessly surrounded, and tug equally hopelessly at the embedded spokes, or push behind for dear life.

Yes; it was memorable mud that, and no mistake. More horses are now hitched on to the struggling twos, fours, and sixes already in harness. Then there is a final effort all round, and the creaking araba, by the combined strength of panting beasts and almost



A SEA OF MUD.

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exhausted drivers, is wrenched from its setting, and reaches a higher level; only, however, with yet another and another sea of mud before it. But let us stop a moment to contemplate the result of this immersion.

These are supply waggons, remember; let us take the first. It contains tea. The water has got into those huge cases; they have swollen and burst, consequently a long perpetual stream of weak Bohea, which would shame the 5 o'clock tea-table for insipidity, pours out and wastes its faint odour on the muddy expanse below. Next comes a huge, van-like cart, full of biscuits, bread and flour. The flour itself has long since turned to dough, the biscuits to the consistency of the flabbiest of crumpets, and the bread from white to brown; or, if brown, from that colour to black, owing to the bath of mud it has been in, which has rendered quite two-thirds of that supply unfit for human food. Sugar and salt come next; the loaf is moist indeed now, while the salt flows out in one long stream from the sacks which contained it.

A few days' downpour would have been a godsend; earth and air would have been equally cleared by it, but such a long continued deluge as this carried destruction with it everywhere.

The men—sturdy fellows, equal to anything, one would have thought to look at them—collapsed completely, very many actually falling by the way, diarrhœa, despondency and death following thus closely in the wake of Mud.

Officers and men alike put superhuman thew and sinew into this work of extrication. As for Coningsby and myself, we did our best with the rest at the spokes; although Coningsby to this day declares that the secret of our being so long embedded was that, while he tugged vigorously one way on one side of our waggon I was tugging with equal energy on the other, only in the opposite direction. No one can conceive how our unfortunate team of four got down the main street of Sistova. That which made an admirable subject for the pages of the *Illustrated London News* was a sorry experience, I assure you. Those half-drowned horses plunged and dived, just as the great seal does in the tank at the Zoo, their very noses being often submerged as they strained every nerve to get yet a few yards further. We soon had to add more to the four-in-hand, and to these again at length, at an exorbitant price, we had hitched on two draught bullocks, and with their united efforts were thus able somehow to pull through in the end, only to again flounder in successive lakes of mud,

alternated by occasional high ground, till we got out into the open on our way to Plevna.

How quickly then the aspect of affairs changed all round. To be within touch of mosque and minaret, streets and telegraph wires, was in some sense to feel one was within touch of civilization; but when those links were left behind, when out in the open we had to face the same dangers and difficulties which had beset us in the town, the hopelessness of our condition asserted itself to the full. Look which way one would, the story was all too plainly told by our surroundings. There were at the commencement of that siege just 66,000 draught-horses, used for the conveyance of supplies, ammunition, &c., from Sistova to Plevna; there were exactly 44,000 left at the end of it, it being estimated that no less than 22,000 succumbed, a large proportion of which fell victims to Bulgarian mud.

Why, they lay there in that Valley of Death, or, perhaps I should say, those successive vales of death, in every conceivable position—some rearing, some plunging, others on their sides and backs, while the heads and heels of some were alone visible; nor were our horses slow to realise their grim surroundings and the danger they were in themselves. The one I rode at one time became quite unmanageable; so horror-struck did the poor creature seem, as he sniffed the malodorous dead horses round about him.

I have endeavoured to convey some idea of this in the accompanying illustration, but pen and pencil alike fail me. That ride to Plevna was something rather to think about than talk about. Dysentery, death in every possible form, laying poor humanity low at every turn; utter despondency reigned supreme, dead horses, putrefying carcasses, half buried in that mud, forming a fit setting to that picture of despair. There they were—dead, all dead as the proverbial door-nail—half devoured in many cases by the wolves, jackals, and smaller fry who, with those “birds of a feather” which always “flock together” on such occasions, had come from time to time “i’ the glimpses o’ the moon” for midnight orgie.

Later on we fell in with the Imperial Guard, 30,000 strong, the very cream of that splendid army which Osman, by taking the strategic position he had done at Plevna, had so effectively blocked on their way to Constantinople. As that long line wound “Over the hills and far away,” it looked like some gigantic centipede, the illusion being all the greater when it is remembered that with such a vast number of men there are always some, now to the



THE VALLEY OF DEATH.



right, now to the left, falling out for one purpose or another, which gives at once (keeping to our simile of the centipede) the appearance of its having innumerable legs. Here and there sotnias of Cossacks galloped past us, varied by a patrol now and again, a convoy of stores under a strong escort, a detachment of infantry, or a lumbering field-piece; but it was to the Imperial Guard that we attached ourselves, the pride of the Empire, so soon to play a conspicuous part at Gorni Dubnik, and elsewhere at the front. It is not easy to the uninitiated to imagine the feelings excited by associating oneself with an army corps on the march. I had been present when the *vivas* of the excited multitude accompanied them through the streets of Bucharest, and now I was again with them *en route* for Plevna.

Our first halt was on the outskirts of a long track of forest land: it was a marvellous sight to see how, in a miraculously short time, a canvas city appeared where but a few moments before nothing but gorse and heather had been. Still more so to watch the fatigue parties attack that forest for fuel.

In a very few moments the trees seemed alive with men who, like armed monkeys, axe in hand, leapt from bough to bough with apelike agility; so that in ten minutes those monarchs of the woods had lost the fair proportions which it had taken them so many years to develop. Branch after branch now came crashing to the ground, followed by "Vivas!" and "Hurrahs!" which once heard would not easily be forgotten; then came the crackling of thousands of camp-fires, which sounded for all the world like file-firing in skirmishing order. This was followed by the cooking of rations, and later on, with those who had the wherewithal in the shape of tobacco, came the soldier's greatest sedative—his pipe. When the last bugle sounded, the wild excitement of the last few hours was over, and the camp of the Imperial Guard was wrapped in silence.

The village nearest to which the encampment was had been devoted very wisely by the officers to the ambulance, soldiers being forbidden to enter it; hence it was that we hastened with all possible speed in that direction. Our first inquiry for accommodation was met by the objection that there was only one room, and as the wife of the Bulgar to whom we spoke was expected at any moment to add to the population it was impossible to accommodate us. We were prepared for excuses, but this was an unanswerable one; so we devoted our efforts to the next hut. There we were received with surly indifference by a Turkish

family, who naturally looked upon us as the invaders we were. However, by a display of determination we managed, after some difficulty, to gain our ends.

Having seen to our horses—secured them in a sort of enclosure—we returned to the exceedingly stuffy and terribly smoke-begrimed hut in which we were to pass the night. The next consideration was to get water, but any information concerning that we found was, for some strange reason of their own, withheld.

Your rigid Moslem is a total abstainer, and likes to keep his special brew of *aqua pura* to himself. In vain we pleaded, till, finding remonstrance of no avail, we adopted severer tactics; and so, taking the two male representatives of the family by their collars, tickling their ears with our revolver-muzzles as they went, we thus at length persuasively induced them to lead the way to the well.

The next difficulty was, how we were to ensure that it had not been poisoned, which point, however, was soon decided, for at the instance of the same inexorable revolver-muzzles we compelled each to take a copious draught, allowing a sufficient time to elapse before we refreshed ourselves or our retainers, so as to make sure no ill effects were likely to follow.

The next evening, after a long day's hard riding, we reached the crest of a high hill, when suddenly there—a vast amphitheatre—before us lay the whole area of that great siege. We felt a curious thrill of pleasure—may I say pride?—at being participators as journalists in those great events we were about to chronicle. Though hidden by the undulations of the country through which we had passed, we had long heard the cannonading in the distance from the redoubts and earthworks which formed so deadly a circle round the doomed town.

Night was closing in as we wound our way down into the valley, at the base of the hill from which we caught our first glimpse. As we did so, each moment the sky was vividly lit up with flash after flash, each sending a shell on its cruelly destructive course. There was a terrible earnestness about the whole scene; what with the perpetual fusilade from the rifle-pits and the thousands of camp-fires, which reflected their fitful flames on the Russian tents, which here, there, and everywhere extended before us, till, in the grey shadows of a frosty night, they were lost to view. Taken *ensemble*, it was certainly the most impressive picture I had ever witnessed.

At this point it will be well to remember that here we had a difficult part to play, since, as journalists, we were forbidden to join the Russian army at the front. So far it had been entirely due to our playing the part of camp-followers, and taking a well-stocked waggon with us, that we had succeeded in getting through as we had done. And now, in the very jaws of the Great Bear as it were, we had indeed to be on the *qui vive* lest we unmasked our batteries. However, we thereupon decided to beard that hirsute quadruped in his den, so pitched our tents in the village of Porodim, under the very nose of the Grand Duke, our mud hut not being more than 200 yards from the Imperial quarters, our being thus perhaps less open to suspicion than elsewhere. To better carry out the deception, we hung several bunches of candles



outside our waggon, and had some large Dutch cheeses and a few tins of preserved meat put well in sight during that time of day when we were most open to scrutiny.

The tents, waggon, and small Bulgarian mud hut which constitute our quarters, were all within touch of the Cossack camp, and beyond this roads in every conceivable direction led up to the heights from which the batteries were bellowing day and night, lighting up the sky from sundown to sunrise with fitful flashes as they poured their deadly messengers into devoted Plevna.

We very soon found the Cossacks almost *too* good customers, for our much-prized stores began to diminish visibly. I believe it is on record that some things were actually sold, but it certainly happened that many went. Our reputation, however, as camp-

followers being established, it was not long before we reduced our daily display to candles and empty boxes, keeping our other treasure out of sight in the hut.

One peculiarity with a genuine Cossack is that he hates water like a mad dog, and as we every morning washed outside our tents as best we could, in big buckets of water from a neighbouring well, the ice on which often had to be broken, we were regarded as curious uncanny creatures by these free-lances.

Once when we were engaged at our ablutions, one of a wondering crowd of these fellows who had come to look on put his astonishment into words.

"What wonderful people those are," he said. "What coun-



try can they come from? Why they wash in the winter time!"

While on the subject of Cossacks, Coningsby and myself were one day just about to do justice to a fowl which we had—well—caught in the neighbourhood and duly cooked. On turning, we were surprised to find one of a long train of Cossack bullock-drivers stopping and looking down at us where we sat, with amazed curiosity. Both feeling an instinctive desire to say something, we talked with playful *badinage* much rubbish which, we felt, being in English, would apply as well as the most profound philosophy to an ill-bred Muscovite. He listened for some time with apparently

stolid indifference to our chaff, till Coningsby divided the fowl, and holding up one half by the drumstick, said—

“Does a fondness for cold fowl run in your family, dear boy? This sort of thing ought to suit you to a T.”

In a moment that clumsy waggoner became a new man. All nervous energy and settled purpose, springing suddenly forward, he grasped the fleshy end of that drumstick in his grimy fingers, and the next instant had mangled it with his teeth beyond all reclaim.

He had taken Coningsby at his word, and we were left on short commons indeed; though this surprise, sudden as it was, was



quite eclipsed by that which followed it, when that burly bullock-driver replied in excellent English—

“Ah! just so. Sad, isn't it? Very sad. Lost your leg, eh? But not in service; no, not so bad as that, anyhow,” and then turning to a dog which I had not till then noticed, he said, “Crunch, poor Crunch! Hungry too, eh? Sad, very sad, isn't it? Never mind; there's the bone. Make the best of it. Thank you. Good morning. Remember, next time, there are Britishers in Cossack garb just as there are wolves in sheep's clothing. Sad, isn't it. Very sad!”

Those of my readers who have read *The Wanderings of a War Artist* in its earlier stages will be familiar with our old friend of

the Quartier Latin who, during the siege of Paris, lived as best he could by his wits, and who, it will be remembered, drank several glasses of *bock* at my expence, and accepted cheerfully, but with apologies, several small silver coins as a loan only, pending those better days which were in store for him—which however had not yet arrived, as may be seen by the fact that he was now doing odd jobs in connection with the armies of the Czar, as a sort of general utility man, his knowledge of French and English standing him in good stead with the officers, who, as a rule, seemed to me better versed in these than in their native tongue. Nor was this by any means the last I saw or heard of my eccentric friend, who was attached for some little time to the camp situated nearest to our own bivouac, and whose accomplishments as a ne'er-do-weel were, I found out, quite equalled by his skill as a flute-player.

Some of those evenings round the camp-fire (which, by the way, at the ordinary rate of siege prices for wood, have often cost us ten or fifteen shillings to replenish for yet another hour's comfort), were pleasant enough, and a popular volume might have been written on the stories then told; one of which, by Coningsby, touching a little experience of his own, I remember ran as follows.

* * * *

Filthy lucre was at the bottom of it, as it is at the bottom of most things. The British Consul—at, I think, Philippopolis—had certain valuable stores and money to send from one hospital to another across country; the money, I may mention, having been chiefly contributed by that most estimable of women, the Baroness Burdett-Coutts. Having no reliable man at hand to look after its safety on the journey, he asked Coningsby—who, with his servant, was going in that direction—to undertake the onerous office, which, the stores being packed on mule-back, and the money safely deposited, he agreed to do; an escort of six Circassians having been specially provided for the greater safety of the little party.

To come at once to the point. Having been on their journey for some time, and having reached the most sequestered part of a wood they had to traverse, Coningsby's dragoman came to him and declared to having overheard a plot on the part of the Circassian escort, who, having found in some way how valuable a charge they had, had determined to murder Coningsby and himself and make off with it.

An inspiration seemed to flash upon the *Times* correspondent. He mustered the six immediately, and declaring there were

brigands in the wood, ordered two to gallop off and scour the neighbourhood in one direction, again ordering two more to ride off in another, while he awaited the tidings they should bring him.

All this, being enforced at a revolver's muzzle, was subscribed to, since the opportunity for carrying out their scheme of murder and robbery could be put into effect any moment later on.

Thus, having got rid of four out of six, Coningsby now turned with his dragoman on the other two, and compelled them to gallop in front of them in yet a third direction, while the mules were driven as best they could in the middle Coningsby and his



servant still covering the backs of their advance-guard with their six-shooters.

What became of the outwitted four, I never heard.

Yes, we had some merry moments, though some very miserable ones too during the silent watches of the night, I can assure you. Indeed, I remember one bitterly cold night, a little group of benumbed correspondents were seated round the almost dead embers of our camp fire. We had quite exhausted our supply of wood and animal spirits, and had run short, too, I remember, in the important matter of tobacco; even the last bugle had long since sounded, and save for the monotonous cannonade, and lurid light which lit up the redoubts from time to time, all was quiet as the grave.

We were truly in sorry plight; at the lowest ebb of that depres-

sion which, when, as now, all things tend towards it, will sometimes affect the most volatile.

It was at this supreme moment that we heard a familiar sound suddenly break through the stillness of the night. We all listened intently. Yes, it must be—it was! It could be no individual phantasy, for we all heard it. It was—in the most perfect time, with the most refined feeling—the strains of an air which thrilled us with a new life, which brought back the blood to our half curdled veins again, as we caught the rhythm of that dear old melody, so familiar to us all, of “Home, sweet Home.”

We rose with one accord and listened. It floated across the still night air to remind us, in pathetic strains, of the homes, the wives, and sweethearts we had left behind us. Need I say that it proceeded from the rough reed pipe of my friend the Cossack camp-follower, whom I had met, in an earlier stage of existence, in the Quartier Latin?

“Odd, isn’t it? Very odd,” as he said when I unearthed him the next morning. “If I’d only devoted half the time to playing the flute which I have devoted to playing the—fool—I might have been better off now—eh? Sad—isn’t it?—very sad!”



Artillery at the Paris Exhibition.

II.

THE HOTCHKISS GUNS.



AMONG the various types of artillery exhibited by the *Société Anonyme des Anciens Etablissements Hotchkiss*, three guns are particularly interesting :

1. A light, quick-firing gun of 37 mm.
2. A light gun of 57 mm.
3. An extremely powerful quick-firing gun of 65 mm.

The gun of 37 mm. (Fig. 1) does not weigh more than 33 kilos ; the length of the bore is 739 mm. (20 calibres) ; total length,

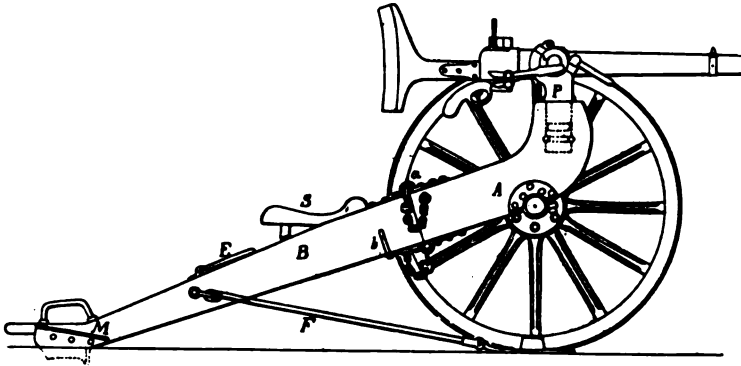
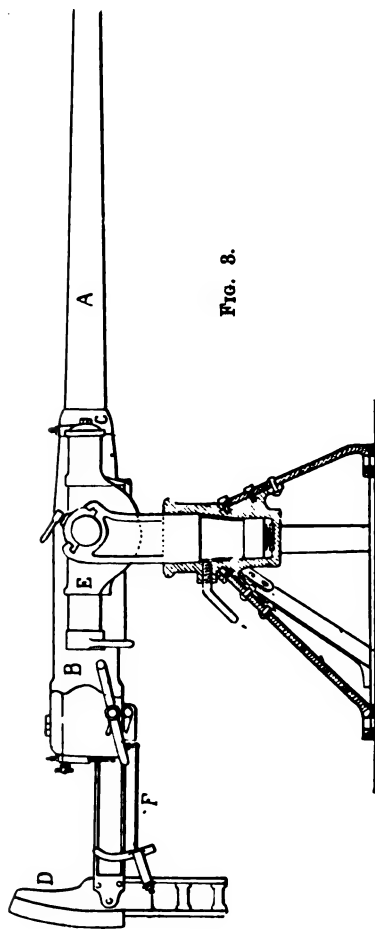
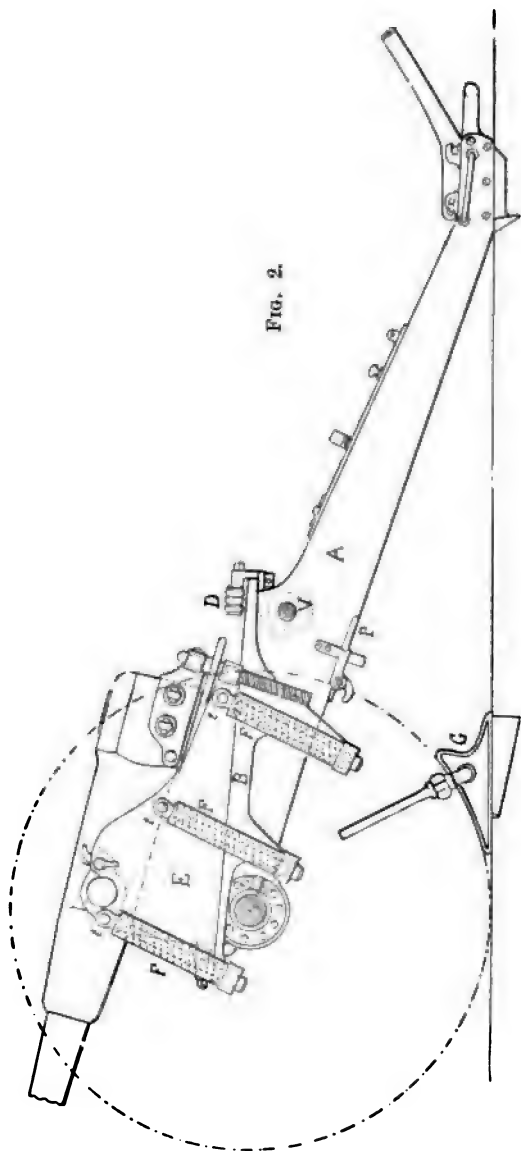


FIG. 1.

842 mm. Its charge is 80 grammes of powder, and it throws ordinary shell, steel shell, and case, which weigh respectively 455, 505, and 570 grammes, with an initial velocity of 402 mètres. Afloat it is employed mounted on a forked pivot, and protected by a shield ; on dry land it is used on a mountain, or disembarkation gun-carriage. In this case it is supported on a pivot P inserted between the cheeks of the carriage, where it is kept in position by a screw-ring. The carriage, whose weight, including the pivot, is 162 kilos, possesses this advantage, that it takes into three pieces ; viz. the body A, the trail B, and the wheels, which makes it easy to be transported by the human arm.



On board ship a single man is sufficient to serve the piece, but when on a mountain gun-carriage, two men are necessary in order to counteract the recoil by the weight of their bodies. The pointer sits on the seat *S*, rests the butt-end against his left shoulder, and receives in his left hand the cartridge presented to him by his comrade, who is squatting on a platform *M*; with his right hand he works the breech, and fires by means of a trigger placed to its right. A square ring *E* fixed behind the seat permits the assistant to maintain his seat during the discharge. The more completely to deaden the recoil, the wheels are provided with two skids *D*, which are hinged on to two rigid rods *F* hooked to the cheeks. On the march these rods are attached to the hooks *b*. In addition to skids the extremity of the trail is provided with a spade, digging into the ground, which is placed under the platform on which the assistant squats.

The rapidity of fire cannot exceed 20 shots a minute, and this only in exceptional circumstances. Taking into account the movements necessary for pointing, opening the breech, and in-

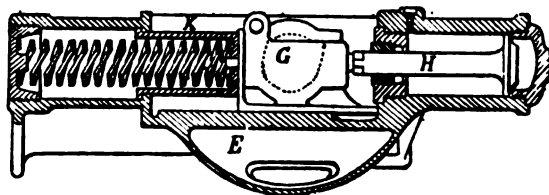


FIG. 4.

roducing the charge, closing it and firing, we consider that an average of more than 10 shots a minute can scarcely be looked for.

The light gun of 57 mm. (Fig. 2) has a length of 1,710 mm. (30 calibres); it weighs 235 kilos, and the weight of its carriage is 600 kilos. The piece in itself presents nothing of particular interest, but the field carriage on which it travels is worthy of close attention. That carriage is composed of three parts: the body proper, a pivoted slide, and a movable carriage.

The body *A* is formed of two cheeks of steel plating, which bear the axle and the wheels. On its upper part rests the pivoted slide *B*, which, by means of a training wheel *V*, can move the gun 4 degrees to either side of the median plane of the carriage. At its two ends the slide is provided with two buffers of india-rubber *D*, in order to deaden the shock of the carriage at the moment of recoil.

The carriage *E* is of bronze; it carries the elevating apparatus,

and recoils along the slide, to which it is attached on either side by three powerful spiral springs enclosed in tubes obliquely placed. These springs are attached by their lower part to the body of the gun-carriage by means of a kevel, by their upper part by screw-rings fitted into tenons on the carriage. This arrangement brings about that at the instant of firing the extension of the springs allows the carriage to recoil as far as the buffers at D, while on resuming their natural position they carry it back with them. In order to increase still further the resistance to the recoil, the body of the carriage is furnished with spade-skids C, which are fixed to the axle by a rigid rod, hooked to the cheeks while on the march, but which is let down by a handle P when battery is formed. Finally, the trail, like the gun of 87 mm., is provided with a spade which digs into the ground, and helps to deaden the recoil.

The quick-firing gun of 65 mm. (Fig. 3) is mounted on a carriage of limited recoil. The entire length of the piece is 8,025 mm.; it weighs 600 kilos, and the weight of its carriage is 750 kilos; that of the projectile is 4 kilos; the charge of powder is 1,650 grammes for shells, 1,450 for shrapnel and case. This is how the checks are arranged: the trunnions are inserted in their beds G, which slide to and fro inside the cradle E (Fig. 4), and to these are attached the rods H of the hydraulic checks, whose cylinders are united with the cradle. The springs are enclosed in a case composed of two tubes sliding one inside the other, the outer tube fixed and attached to the cradle, the inner one K resting against the trunnion-beds, in whose movements they participate. In recoiling, these beds draw back the piston H and compress the springs, whose elasticity thrusts back the piece again into the firing position.

This gun is discharged from the shoulder by means of a butt-end D, and this is effected with a cord F. Elevation is obtained by

a rack, whose pinion may be clamped by a screw, which fixes the elevating screw in the required division.

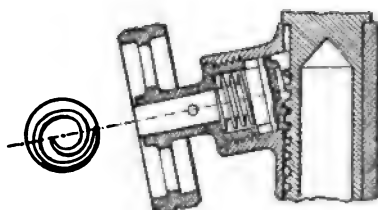


FIG. 5.

R. W.

(To be continued.)

Notes on the Swedish Navy.



IN 1869 the naval budget was £187,000, without any extra grant. The fleet consisted of 22 vessels, viz. 3 monitors—now called second-class ironclads—2 third-class gun-boats, 10 unarmoured second-class gun-boats, 1 line-of-battle ship, 1 frigate, and 2 corvettes, the last three being some thirty years of age. The ordnance was of old make, and there was no submarine system of defence. Last year, however, the budget amounted to £265,000, and in addition there have since 1869 been extra grants for £1,500,000, an average of about £80,000 annually. Admiral von Otten informs us that the naval *matériel* consists of the highly successful first-class armoured cruiser *Svea*, 1 second-class cruiser, 8 third-class, 1 unarmoured vessel, 9 first-class gun-boats, 4 first-class torpedo-boats, 7 second-class, 1 third-class, 5 boom torpedo-boats, 3 wooden corvettes, 1 torpedo exercise ship, and 1 admiral's yacht, *i.e.* 41 vessels in all.

However, the Admiral lays more stress upon the development of the *personnel* of the navy since 1869. The total number of men was then 5,754, divided into two categories, viz. the *flottan*, or navy, consisting of 96 officers and 148 petty officers, exclusive of artificers, 400 able-bodied sailors, 280 cadets, and 2,578 *båtsmän* (*i.e.* the first naval reserve). The second class consisted of the coast artillery, comprising 86 officers, 60 non-commissioned officers, 200 gunners, and 1,906 *båtsmän* (second naval reserve). These two corps have since been amalgamated, and the organization approved in 1887 shows a *personnel* of 175 officers, 224 non-commissioned officers, and 4,000 sailors, besides 300 to 400 cadets. There is another organization, the *sjöbevärning* (maritime defence), in an improved form. Hitherto this body numbered about 30,000, who were partly trained in the army, and exempted from service

in peace. The new *sjöbevärning*, which for the first time this year serves with the fleet, will only number about 7,000 men, but these will be thoroughly efficient. The Admiral finally referred to the reforms, whereby a steady influx into the navy of young and energetic recruits is assured, and also their improved pay and treatment. Moreover, some important vessels are building, viz. first-class cruiser, the *Göta*, sister ship to the *Svea*, and to be launched next year, 2 first-class gun-boats, besides torpedo and other vessels.

It is, however, curious that, although Sweden produces the finest steel in the world, most of the armour for her ships comes from abroad, we presume because it can be delivered cheaper. Within the last few years, however, guns are being made at Bofors and Finspong, which have stood the tests equally well with Krupp's, and shortly Sweden will manufacture her own ordnance. Guns have been made for the Danish and Norwegian armies, and only the other day the Bofors factory completed an order for twenty-eight 12 c.m. steel guns for the Swiss army.



Clippings from the Foreign Press.

AN AMERICAN VIEW OF THE NAVAL MANŒUVRES.—The *United Service* for October contains an article from the pen of Lieutenant Wainwright, U.S.N., which is remarkable for the friendly and appreciative tone in which it speaks of our navy. The most important lesson for England, he writes, resulting from the recent manœuvres is the fact they have established that her coasts are highly vulnerable. This tends to strengthen the arguments of writers who demand land fortifications in addition to maritime supremacy. Many authorities, notably Admiral Colomb, adhere to the opinion that an overwhelmingly powerful fleet is sufficient for our security, and it has already been pointed out that raiding operations on an enemy's coast would be of limited application in actual warfare. England has never been prepared for war at its outbreak. Money has always been wasted in "rushing ships into commission." She has ever demanded heroic deeds of her fleets and sailors to compensate for material deficiencies. The French and Spaniards used to build better vessels; but the English triumphed in spite of this through superior seamanship. Some are of opinion that, in these days of armour-clads, our excellence in seamanship will no longer avail us. This writer, however, draws a widely different conclusion from the recent manœuvres; which have proved that there is as grand a scope as ever for seamanship in the handling of vessels of modern type. If the secret of England's success in the past lay in her seamanship, the position would not be found to have changed materially to-day, though it may be that some of her possible enemies approach her more nearly now in this respect than heretofore.

Greater damage may now be inflicted by the raids of fast cruisers on the hostile coast; but, on the other hand, the means of defence against them have been augmented in an equal proportion. Quick-firing guns will dispose of unarmoured cruisers, while submarine mines and torpedoes will delay the progress of heavy armour-clads till the arrival of the defending fleet, which will be supplied with accurate intelligence from the Admiralty at Whitehall. Steam will facilitate the protection of our commerce, thinks

the writer. Goods will be carried in big steamers, whose departure and arrival can be accurately predicted, and convoy appointed accordingly at points exposed to the enemy's attacks. The numbers of our cruisers should be vastly increased, both to provide scouts for the fleet of battle-ships and for the protection of commerce. But Nelson was always crying out for more frigates, so that the conditions of naval warfare have not been greatly modified.

As to blockades, it is pointed out that, if the blockaded can issue forth when it seemeth good to them by aid of steam, so the blockaders are not so liable to be driven out to sea by tempestuous weather. Admiral Hornby's ratio between them of 3 to 5 is pronounced excessive, as taking no account of superior seamanship. The English are "seamen by right of inheritance"; and we may yet behold our fleets blockading others of equal or superior strength. Steam increases the superiority of the stronger fleet, and thus lends additional security to our coast-line; though it is now, as it ever was, bad policy not to have a navy strong enough to overpower all potential enemies. If a blockade is broken, steam enables the stronger fleet to pursue and capture the fugitives. But we shall probably see English fleets preferring to engage in action with inferior forces rather than undertake a troublesome and costly blockade. History will repeat itself, and seamanship is of even greater importance to-day than it ever was. This article certainly enforces the historical continuity of naval warfare, on which Admiral Colomb so strongly insists.

ANOTHER INVASION OF CANADA.—Last month we made mention of a rather able scheme for the invasion of Canada which appeared in the *United Service* of Philadelphia. The theme appears to have its fascinations for our transatlantic cousins. The *Public Service Review* of New Jersey now enters the lists, but capers rather feebly round them. After expatiating on the wonderful potentialities of the Dominion, especially the great North-West, where the Japan Current tempers the climate in the same way that the Gulf Stream influences the coasts of Europe, the writer goes to work in high-handed fashion. He is the less disposed to spare us from regard to the fact that were Canada annexed, her iron would enable the United States to dispense with expensive Spanish ore, and thus cut out England "as purveyor of Bessemer steel." *La force prime le droit* beyond the Atlantic, at any rate in military circles. There is, however, a strong Hibernian flavour about this lucubration; we are informed that our Irish soldiers would desert to the Americans in any future conflict for Canada; and that the English

do not take readily to war by sea or land ! The writer would, basing on Albany, move by way of Lakes George and Champlain, and the Richelieu River, on the St. Lawrence 45 miles below Montreal, "against the capital of the Dominion." It will thus be seen that his strategic views are not equally cogent with those advocated by the *United Service*, which have already been noticed. The United States army consists of 24,000 men all told ; the organized Militia of 106,000, "one-half of which force, we are assured, could be assembled and *en route within a day*." We congratulate the United States Government on this perfection of organization, which has certainly not been yet attained in "effete" Europe. From November to May, it must be remembered in weighing this question, our fleet could not operate in the Canadian waters, while the movement of troops on land would in some respects be facilitated.

GENERAL FÉVRIER.—The *Illustration* informs us that this distinguished officer, who has just been appointed Grand Chancellor of the Legion of Honour, in succession to General Faidherbe,

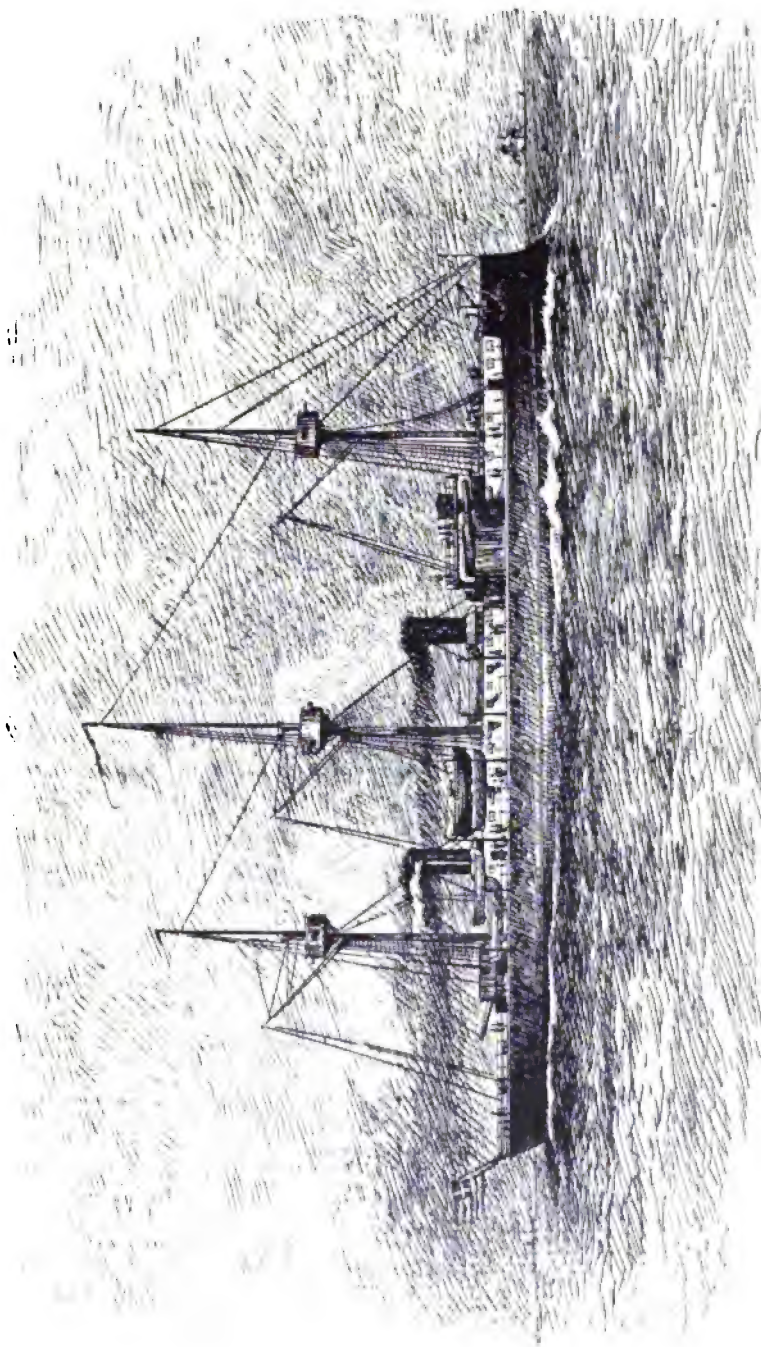


GENERAL FÉVRIER.

deceased, was born at Grenoble on the 21st October 1823. Since his departure from St. Cyr in 1843 he has taken part in every French military expedition. In the Crimea, as captain of Zouaves, he was severely wounded in the leg, and a like mishap occurred to

him during the campaign of 1859 in Italy. In 1870 he was in command of a line regiment. At Gravelotte he had his jaw shattered, but in the following January he was again in the field at the head of a brigade of infantry. In 1878 he was promoted general of division, and in 1882 succeeded General Billot in command of the 15th Corps at Marseilles. In 1875 he presided over the Committee for the revision of the Infantry Regulations, and was appointed member of the Supreme Council of War. On the death of Chanzy, he replaced him in command of the 6th Corps at Châlons-sur-Marne, but was soon afterwards retired, having reached the limit of age. General Février was first appointed Knight of the Legion of Honour on return from the Crimea.

LANCES AGAIN.—The *Revue de Cavalerie* for October returns to the subject of lances, and the advisability of arming the French cavalry with them in imitation of the Germans. The paper in question contains a very interesting report presented in 1881 to Marshal Gérard, the Minister of War, by Colonel de Brack, and dealing with this subject. The lance, it seems, was not introduced into France till 1809. The French dragoons had, we learn, been "demoralized" by the Cossacks in 1807 and Napoleon wished to counteract the effect by providing them with lances. The vast genius of Napoleon, wrote the Colonel, could not descend to a consideration of cavalry details. He was no horseman, and, according to him horses could carry any amount of weight, subsist everywhere, march for ever. His first lancers were therefore armed with lance, sabre, pistols, carbine and bayonet. A funny scene was enacted at their first appearance on parade in the Place du Carrousel. The Emperor gave the command "Lancers to fight dismounted"; but when the men had obeyed, leaving their lances attached to the saddle, these weapons swayed about in such a manner as to wound the men left in charge of the horses. The Emperor nevertheless persisted in his ideas, and, in consequence, the horses broke down right and left in the campaign of 1812, while the men threw away those articles of their armament which they valued the least, retaining those for which they had a predilection. One point seems to be well established: the lance should, as a rule, be reserved for heavy cavalry, as it is only in the shock of a charge or in a general pursuit that its advantages over the sabre are undeniable. Here again an exception to the rule, we think, comes in. British light cavalry when engaged against a savage foe should be armed with them. But the conditions in which our soldiers usually serve differ *toto cælo* from those which affect



THE "SPETZA."

continental armies. Finally, the French writer emphasizes the necessity of caution in reverting to the lance, and strongly urges that it should be restricted to the first rank of the squadron.

THE GREEK ARMOUR-CLAD "SPETZIA." The *Journal de la Marine* supplies an excellent account of this ship, which was launched by the *Société des Forges et Chantiers de la Méditerranée* at Havre on the 26th October last. Her tonnage is only 4,885, but it is claimed that her speed and offensive power far surpass what this displacement has hitherto accustomed us to expect. Her speed attains 17 knots and her armament includes 2 Canet guns of 27 c.m., and 36 calibres, and 1 Canet gun of 15 c.m. and 36 calibres on the upper story of the citadel. Four Canet guns of 15 c.m. and 36 calibres are on the lower story; one of 27 c.m. and 36 calibres on the after turret; with 7 quick-firing guns of 57 m.m. and 16 revolver-guns of 37 m.m. She carries 3 torpedo-tubes, one at the bow in prolongation of the axis, the other two on the broadside. The *Spetzia* is protected by a continuous armoured belt of compound metal 300 m.m. (12 in.) in thickness; by a cuirass of 75 (4 in.) m.m. of steel on the whole extent of the freeboard; and by a deck of three thicknesses of sheet iron, coal bunkers, cellulose and 118 watertight compartments. Her engines, triple expansion, and of 6,700 h.p., actuate two screws; she has three masts with armed tops. The *Journal* is of opinion that the construction of this ship (a ram with citadel in two iron stories) has solved the problem of how to obtain a powerful armour-clad of small tonnage at a relatively small cost.

ARTILLERY FIRING OVER THE HEADS OF INFANTRY.—A recent issue of the *Progrès Militaire* inquiries into the causes of the premature explosion of shells which have occurred during the above practice. Our contemporary refers them to two causes: (1) incorrect timing of the fuse, and (2) faulty construction of the projectile itself which, unable to sustain the shock of the explosion, bursts into fragments and issues from the muzzle of the gun like case-shot. The remedy for the first-named defect, it continues, is obvious, viz. more assiduous instruction of the men, and more careful supervision on the part of the officers; but to obviate the second evil, it will be necessary to post the batteries 700 or 800 yards in rear of the infantry over whose heads they are about to fire. In this case any imperfect projectiles which the artillery may have discharged will have expended their force before reaching the battalions in front of them.

Volunteer Notes.



URING the past month the peregrinations of earnest and talkative Members of Parliament have naturally afforded various opportunities for the public discussion of Volunteers' affairs, and the mode in which they live and move and have their being. It is true that the store of knowledge already in possession of the public on this subject has not been greatly enriched by the miscellaneous observations brought forward as a rule on these occasions, but from the lowest point of view they can always be regarded as a good advertisement. The more so, we would suggest, because the tone even of after-dinner speeches about the Volunteers is very different now from what it used to be in the days when *Punch* talked airily of meeting the conscripted forces of a continental nation with a "million Volunteers," and when if a man duly enlisted in a Volunteer corps, fired so many rounds a year—even if he never hit the target once—he was solemnly pronounced an "efficient" and paid for by Government, and consequently by the nation, as such. Now-a-days, when reference is made to the subject of Volunteering, either by Volunteer officers postprandially returning thanks for the force, or by wandering Ministers seeking to exploit the policy of Government, the remarks made have generally a practical ring and deal more with the actual requirements of steady growth than with possible development under high pressure. Especially is this noticeable in the speeches of Mr. Stanhope, who seldom loses an opportunity of impressing upon his listeners the theory that Government is at any rate striving to make the Volunteers not only *ready* but *fit* to take their part in a national emergency. In his speech at the Lord Mayor's Dinner the Secretary of State for War dwelt rather more strongly upon the improved condition of the Militia than upon the subject

of Volunteering; but none the less his allusion to the latter, clearly implying, as we hold it did, that on the common platform of readiness and fitness Volunteers must stand side by side with both Militia and Regulars, was the class of allusion that the best friends of the movement best like to listen to. When, moreover, Mr. Stanhope spoke of "the great citizen army happily daily increasing in the confidence of the country," he paid it a higher compliment than ever was paid it in the days when the curse of volunteering was the blind confidence placed in it by the public, coupled with the equally blind confidence which far too many Volunteers placed in themselves.

While on the subject of the Lord Mayor's Dinner we must not, of course, forget to give a parting word—and a parting word, indeed, we hope it will be—to the late Lord Mayor and his apotheosis as, according to Lord Cross, the best friend the Volunteers have ever had. Our own opinion as to the indiscretion and impetuosity with which, having no doubt the best intentions in the world, Sir James Whitehead intervened in circumstances he naturally knew little or nothing about, have been pretty clearly stated in these pages, and the accuracy of our judgment seems at the time of writing likely to be very fully indicated at an early date. Apart from the injury done to the feelings of the provincial corps in leaving them entirely out in the cold, it appears that even the Metropolitan corps which have been so largely benefited by the Patriotic Fund are not by any means perfectly satisfied as to the method in which the distribution has been carried out. The accounts have been called for with some asperity, and we shall be greatly surprised if, when they are duly rendered, considerable murmuring will not arise from many sources. As an instance of what may be expected, we note that one very prominent Metropolitan corps, the honorary colonel of which recently gave a very large contribution in aid of its equipment, was allotted some seventy pounds odd by the Mansion House Committee, which allotment was respectfully declined. Doubtless the corps in question having done so much towards putting itself into readiness thinks it ought to have had a larger amount to enable it to distance its rivals in other directions; but, in any case, its feelings towards the originator of the Patriotic Fund do not seem to be those of simple and childlike gratitude.

It is pleasant to record the fact that Mr. Stanhope's repeated assertion of the interest he feels, both privately and officially, in the Volunteers will well stand being put to a very practical

test. When the Mansion House Patriotic Fund was first started he was early in the field with a handsome subscription, as might be expected from his official connection with the object of the fund. When another fund was started in Lincolnshire, of which Mr. Stanhope represents a division in Parliament, he might well have been excused on the score of his previous offering. But Mr. Stanhope has handsomely recognized the theory that there are other Volunteers besides those in the Metropolis who require encouragement, and has put down his £100 to assist in completing the equipment of the county corps. We wonder how many of the magnates who similarly helped the Lord Mayor to start his fund, and who still have county obligations in this direction, will do as the Secretary of State for War has done, without the least ostentation, and indeed apparently with some enthusiasm.

Last month we expressed a not very favourable opinion of the then projected Volunteer Force Institute for London and the Home Counties. Our views have been strengthened by a meeting which has since taken place at the Royal United Service Institution, at which the subject of discussion was the paucity of Volunteer officers. Will it be believed that the result of this discussion was the formulation of two demands: (1) that Volunteer officers should be admitted to Court by right of their commission, and (2) that Volunteer officers should be granted commissions in the Regular Army on the same terms as Militia officers? As if these two matters, to the entire exclusion of such difficulties as expense, the occupation of time at inconvenient seasons and so forth, were to be taken as really causing would-be Volunteer officers, well qualified for a commission, to hang back. As a contemporary remarks, no Volunteer officer of suitable status who wants to be presented at Court finds any difficulty in getting presented, while there are unquestionably some by whom the exercise of the privilege as a right would not be altogether in the eternal fitness of things. As to the second demand, there is obviously a wide difference between the Militia officer who has had some experience of military law, strict discipline, and interior economy, and the Volunteer to whom all these are as it were sealed books. Keenly anxious as we are for the advancement of Volunteering in all proper directions, we unhesitatingly give our vote against proposals of this kind, which will only serve to create mockery of the Force, and a bad feeling between it and the Militia, while they cannot at present stand the remotest chance of serious consideration by the War Office.

The fact is that the time is not yet ripe for any demonstration on the part of Volunteer officers with a view to getting their rank recognized with the same completeness as is the military rank of Regular and Militia officers. Doubtless the time will come when the recognition will be accorded as a matter of course, but it will not come until a good many anomalies now existing are cleared away. In the meantime the better class of Volunteer officers are as a rule fully content to use their titles only in connection with their actual duties, or on the occasion of purely Volunteer functions.

In our October number we commented upon a painful case of direct insubordination on the part of three batteries of an Artillery corps in the South of England, who on account of some dispute over a challenge cup quietly absented themselves *en masse* from the annual inspection. Doubtless these high-handed exponents of Volunteer ideas of discipline and good feeling imagined that their spirited action would bring about all they could wish, the humiliation of their officers, the intervention of the War Office, and a concession of all the original points of dispute. The War Office have thought otherwise, and in the course of the month an order has appeared disbanding the batteries in question, greatly, no doubt, to their discomfiture, and very much, of course, to their public shame. It is to be hoped that the lesson will be a useful one to several other corps in which the discipline is by no means what it should be, and the men and non-commissioned officers of which are rather addicted to "combining" to gain their respective ends.

Up to the time of writing, all the official returns of the Volunteer force for the year just closed had not been received at the War Office; but from the data already available it is evident that considerable progress has been made in some very important directions. For instance, the number of officers who have earned the extra capitation grant of 30s. for their corps by passing in tactics is this year 1,241 as against 1,086 last year, showing an increase of 155. This is distinctly encouraging, as is also the return of officers who have earned the second extra grant by passing in signalling, which this year stands at 50 as against only 27 last year. It is expected that the full returns as to the "efficiency" of the rank and file will be available towards the end of December, in which case we shall hope to submit a few special observations thereon in the January number.

Apropos of efficiency returns, it is noticeable that during the past few weeks one of the journals specially devoted to the in-

terests of Volunteering has been making some highly suggestive remarks calculated to give its readers a very poor idea of the *bona fides* of some Volunteer corps in this matter. That scandals exist we are only too well aware, and it is high time that they were put a stop to. The cooking of Volunteer returns so as to make it apparent that a man who, during the year, has been actually absent from the country fired his class and obtained the requisite number of hits, is very singularly disgraceful; and now that a Volunteer Service journal has taken up the subject with some vigour it is to be hoped that the authorities will step in and take measures to prevent the recurrence of such practices. Possibly the new Volunteer musketry instructors may have some power to check the evil, but it must be checked somehow if the "daily increasing confidence" which Mr. Stanhope says Volunteers are enjoying in the sight of the nation is to be sustained. A manifesto on the part of the War Office, to the effect that the practices in question are suspected and any future discovery will lead to condign punishment, would perhaps be a useful preliminary measure as returns of this kind cannot well be cooked without the connivance of some of the regular staff, and to the latter the War Office could in a matter of this kind make themselves sufficiently disagreeable.

In our last number we commented on the splendid figures attained by Sergeant Fulton of the Queen's Westminster, and Captain Cowan of the Royal Engineers, in a certain weekly shoot of the North London Rifle Club. During the month the championship of the Club for the season has been announced, and as Sergeant Fulton, the winner, has beaten all previous records of this or any other rifle club his performance deserves special mention in these pages. His aggregate of eight shots at short ranges, half of which were fired in Volunteer positions, and of four shots at long ranges runs up to the magnificent total of 1,100 points, a grand record of *sustained* brilliant marksmanship. Captain Cowan came next with 1,088, and Corporal Leghorn of the London Scottish third with 1,073.

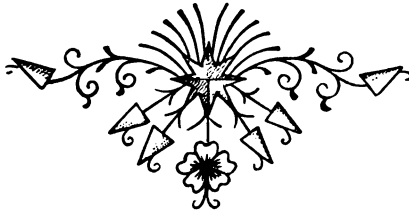
Considerable success has attended, we are glad to see, the Inter-Regimental Rifle Match for Yeomanry regiments, instituted last spring by Colonel Edwards of the 2nd P.W.O. West York Yeomanry Cavalry. This competition, it will be remembered, has since been adopted by the authorities as one of the annual army matches and seems likely to do a vast deal of real good towards improving Yeomanry shooting, a consummation indeed "greatly

to be wished. In this year's competition almost every one of the Yeomanry Cavalry regiments in Great Britain entered, the Challenge Cup of the value of over £100 being won by the Ayrshire corps with 514 points in individual firing at 500 and 600 yards, and 80 points in volleys at 400 yards. The Pembroke Yeomanry are second with 470 and 94, the Northumberland bringing up the tail with 228 and 46.

Volunteer candidates are not conspicuous by their presence in the list of successful candidates at the last examination of officers in foreign languages. Only one—Major A. W. Lassen, 2nd West Riding Yorkshire Artillery Volunteers, who has qualified as an interpreter in German—is to the fore on this occasion, much to the regret of those who hoped that the concession made by Government in allowing Volunteer officers to take part in these examinations would be more widely appreciated. That the Volunteers are making a serious error in not meeting the authorities half way in this direction should be evident to all who know how important are linguistic capabilities in the field, especially in such warfare as that in which Volunteers would be required to co-operate. Moreover, there are numbers of Volunteer officers who would cheerfully volunteer for any sort of active service to-morrow if their offers had any chance of being accepted. These should understand that a smart man with an interpreter's certificate ought to be not wholly unacceptable to the authorities in an important campaign, where a large proportion of those in the Regulars equally qualified for employment in the Intelligence Branch have to be made use of in other ways.

Tactical Societies are now in the full swing of their operations, and are doing good work all over the country with war games and lectures on subjects of technical interest. In one programme which lies before us, that of the Leeds centre—Leeds, by the way, is most progressive in the matter of Volunteering in all its branches, with the natural and obvious exception of submarine mining—of the West Riding of Yorkshire Tactical Association, we note with satisfaction that the Staff Officer for Instruction at York is taking a kindly and practical interest in the proceedings. We are further informed that the Major-General commanding the North-Eastern District has signified his willingness to become an officer of the Association and to be present occasionally at its meetings. This is as it should be, and we should like to see the feeling of *camaraderie* here evident extended to regimental officers of the Regulars, some of whom, we know well, would be astonished at

the zeal and capacity displayed by Volunteer officers in the study of tactics. *Apropos* of tactical societies, it would give the writer of these *Volunteer Notes* great pleasure to receive "for notice" the programmes of any society the secretary of which is sufficiently enthusiastic to desire that the example set by existing institutions should be widely followed. Any special developments, too, would be welcomed, as calculated to enhance the general usefulness of this portion of the magazine and to render it more thoroughly representative of all branches of Volunteer thought and enterprise. Communications, as before noted, should be addressed to the Volunteer Department of the Magazine, and the senders may rely upon their being treated with every consideration.

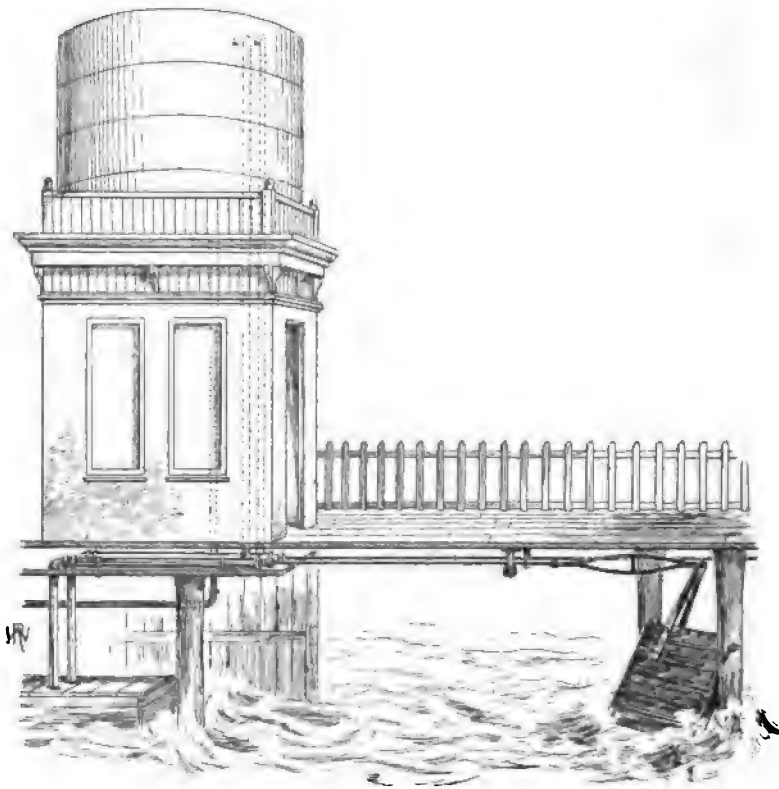


Utilizing Wave Power.

(From the *Scientific American*.)



OCEAN GROVE is a popular summer watering-place on the New Jersey coast, nearly fifty miles south of New York City, and here, during the past season, the plant represented in the accompanying illustration has been put in place, and seems to have performed the work for which it was designed in a very satisfactory manner. The pier has several gates, of which only one is shown in our illustration, each of the gates being swung on a steel rod, so that the lower

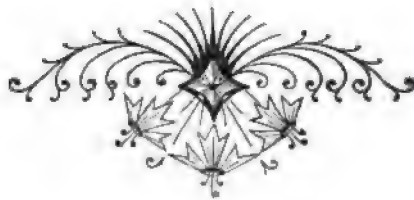


WAVE POWER EMPLOYED IN PUMPING.

part of the gate will be submerged at all tides—two feet submergence at low tide and seven feet at high tide representing the

average calculated upon. At the top of the gate is secured one end of an arm, whose other end is pivotally attached to a jointed connecting rod, which extends beneath the platform of the pier to the piston rod of a pump. Each gate is 13 feet long, and the waves, as they strike the gate, swing it inward, the force of each wave sufficing to effect a stroke of the piston, whereby water is lifted from a sunken well beneath the tower to a tank 40 feet high.

It is easy to see that, with the connections so made as to utilize the power obtained a little farther from the water's edge, or by carrying the well far enough down, it would be possible to supply the tank with fresh water, but this has not been sought in the present instance. The water here has been principally used for sprinkling the streets, and it is stated that in one day 40,000 gallons were thus supplied for this purpose. Opinions are somewhat divided as to the advisability of generally using sea water for street sprinkling, but nothing can be said against its employment for flushing sewers, extinguishing fires, &c., and the construction here represented offers what appears to be a practical means to facilitate such use.



A List of Military Inventions

PATENTED DURING THE FOREGOING MONTH.

[*This List is specially compiled for the ILLUSTRATED NAVAL AND MILITARY MAGAZINE by Messrs. Rayner and Cassell, patent agents, 37, Chancery Lane, London, W.C., from whom all information relating to patents may be had gratuitously.*]

- 16,695. Improvements in breech-loading fire-arms. GEORGE RADCLIFFE BUNNETT, EDWARD CHARLES FACHE, and ARTHUR NICHOLLS, 28, Southampton Buildings, London.
- 16,701. Improvements in the construction of projectiles. JAMES O'KELLY, 23, Southampton Buildings, Middlesex.
- 16,924. Improvements in the method of, and tools for forging elongated conical projectiles. HENRY CLOSE, Bank Buildings, George Street, Sheffield.
- 16,950. Improvements relating to combined weapons for military and other purposes. WILLIAM CHAINE, 45, Southampton Buildings, London.
- 17,005. Improvements in and relating to automatic signalling targets. ARTHUR THOMAS METCALF JOHNSON, 1, Queen Victoria Street, London.
- 17,010. An improvement in projectiles for small-arms. EDWARD PALLISER, 28, Southampton Buildings, London.
- 17,185. Improvements in or relating to pneumatic guns. ALFRED JULIUS BOULT, 323, High Holborn, Middlesex.
- 17,198. Improvements in lances for war purposes. OTTO POTSCHEKE, 41, Eastcheap, London.
- 17,474. Improvements in explosives. CHARLES EDWARD RHODES, and ALLAN THOMAS COCKING, 15, St. James's Row, Sheffield.
- 17,621. Improvements in ammunition for ordnance. LATIMER CLARK and EDWARD HARDING STEWARD, 24, Southampton Buildings, London.

SPECIFICATIONS PUBLISHED.

- 12,334. FARINI. Magazine rifles, &c. 1888. 11d.
- 16,691. HOLLAND and ROBERTSON. Small arms. 1888. 11d.
- 18,157. HARRISON. Fire-arms. 1888. 8d.
- 16,693. NORDENFELT. Torpedoes. 1888. 8d.
- 17,332. LORENZ. Ordnance cartridges. 1888. 8d.
- 17,910. DYMOND (Napier). Vessels. 1888. 8d.

The above specifications published may be had of Messrs. Rayner and Cassell, 37, Chancery Lane, at the price quoted.

Reviews.

Voyages of Discovery in the Arctic and Antarctic Seas, and Round the World: Being personal narratives of attempts to reach the North and South Poles, and of an open boat expedition up Wellington Channel in search of Sir John Franklin, &c. By Deputy Inspector-General R. M. M'CORMICK, R.N. 2 vols. (London: Sampson Low. 1884.)

Mr. M'Cormick has a right to say, with Othello, that he doth "a plain, unvarnished tale unfold" in describing all those incidents which go to make up the story of a life more full of adventure and more governed by a ruling passion than is common. The two volumes in which the story is embedded are a remarkable achievement for an author in his eighty-fourth year, and form in themselves an evidence of the perseverance and courage which seem to have distinguished the writer throughout. Here we have exhibited a character governed by a passion for sea-life, a passion for travel and visiting new scenes, and a passion for perfecting all to which it had at any time given its attention. In this way, we have the author, after the untimely loss of his father by drowning in the wreck of H.M.S. *Defence* on the Coast of Jutland in 1811, taking up the medical profession simply as a stepping-stone into the navy. But once started as a medical officer, he seems to have left no stone unturned to perfect himself as such, and is able, in consequence, when his active career has long closed, to recall with pride the good health of all those who passed under his care. And then, governed by the passion for exploration, we find him bending himself steadily to the studies of botany, zoology, and geology, as those most likely to qualify him for taking part in those voyages of discovery on which his heart was set.

The regular service was certainly not kind to him. It sent him three times out to the West Indies, to be struck down by the yellow fever, and to be three times invalided in all haste. The respite in the regular line of the service was but a certain sojourn at home, and another voyage westwards, but this time to South America.

But the reward was apart from the regular line of the service, and began when, to his heart's content, he made a friend of Captain Parry, and sailed with him as assistant-surgeon of the *Hecla* to Spitzbergen in 1827. Here, while Parry was making for his farthest north over the broken pack, M'Cormick, in addition to his regular duties and to an untiring examination into the natural history of the sland, took his place and turn as an executive officer, and as officer of the watch. The whole story is simply told, but at this distance of time one is again struck by the relentless character of the pack which seized upon the ship and, holding her for

three weeks, frustrated most of the hopes that Parry had formed of what was possible were an early start made over the ice.

This first experience of Polar work affected M'Cormick, as it seems to affect everyone, with a burning desire for more of it; and his character and antecedents marked him as the fittest for the post of medical officer of the *Erebus* when, under Captain Ross, and in company with the *Terror*, Commander Crozier, she was commissioned in 1839 for the voyage to the Southern Polar regions.

In this ship, Mr. M'Cormick enjoyed what to him were the sweets of the service, a constant succession of new and strange scenes, with abundant hard work and privation, and not a little peril. With these were interspersed bright and pleasant interludes of visits to Tasmania and Australia. The expedition did not get away until September, and it was not till May 1840 that the real business of the expedition began in the exploration of Kerguelen's Land, in which Mr. M'Cormick took a prominent part, and which occupied with the magnetic observation more than two months.

Then came a visit to Hobart Town, and a final departure for the South Pole, *via* the Auckland Islands, on the 12th of November. It was on January 11th, 1841, that Mr. M'Cormick saw the great new continent—South Victoria Land—with its lonely brother volcanoes, *Erebus* and *Terror*, towering in majesty and, at least one of them, pouring out a till then unwatched volume of flame and smoke. Then, too, was seen that great southern ice-barrier, a white wall from 100 to 300 feet high, barring all farther passage to the south, and at the same time daring humanity to pass if it could. The expedition was back at Hobart Town on the 7th of April, and then went on to Sydney and then to New Zealand. From the Bay of Islands the second attempt was made to penetrate southward, and the pack ice was entered on November 18th. But there, in lat. 78° 8', was the giant barrier again, and no hopes of penetrating it, while the danger from berg and pack was pressing and constant. The second voyage of discovery southward was over, and the ships made for the Falkland Islands and *Tierra del Fuego*.

In December 1842 the expedition, parting from the Falkland Islands, made its third and last attempt to penetrate southward. This time land was again discovered, but no higher latitude than 71° 30' was reached, and the expedition bore up for the Cape of Good Hope and home, where the ships were paid off in September 1843.

After this Mr. M'Cormick held an appointment in the *William and Mary*, the Commodore's ship at Woolwich, which was then supposed to be a life appointment. But the age of this kind of reward for valuable services was passing away, and no substitute had been established. Mr. M'Cormick was so far a victim of the change, that he could not but feel a strong sense of chagrin when it turned out that the appointment was made under the three years' limit.

But when the appointment terminated, at the end of 1848, there were terrible misgivings as to the fate of Sir John Franklin's expedition to the Northern Polar regions. Mr. M'Cormick threw himself eagerly into the discussions of the time, pressing his views in all directions, and urging plans of search dictated by his own varied experience, and placing his personal services freely at the disposal of the Government, and of those who advocated private enterprise. It was not however until February 1852 that he received an appointment to the *North Star*, fitting out to accompany Sir Edward Belcher's searching expedition. Mr. M'Cormick was strongly in favour of the method of searching by boats on the break up of the ice, judging that close search could be made in this way, and that open water would commonly be found between the pack and the shore, which was the result of his observations. His last service afloat was a long boat journey up the eastern side of Wellington Channel, examining every inch of the ground, proving the feasibility of that method of exploration, and deciding the then moot question of whether Jones' Sound opened into the Channel.

When Mr. M'Cormick's promotion to the rank of Deputy Inspector-General came, after all these varied services, he must have had the pleasure of knowing that it was a well-earned honour. No one can read through these volumes of his without noting that their author has lived a useful life, which he may look back on with legitimate pride and satisfaction. If he has had, as appears, times in his life when his merits seemed to have been somewhat overlooked, he may well recollect that that is the common lot, and that, especially in the navy, departure from the beaten track yields its pleasures more in the consciousness of high and useful aims, than in the immediate recognition of such aims by those who are called "the authorities."

P. H. C.

Service Chemistry: Being a Short Manual of Chemistry and its Applications in the Naval and Military Services. By VIVIAN B. LEWES, F.I.C., F.C.S., Professor of Chemistry, Royal Naval College, Greenwich; Assoc. Inst. Naval Architects, &c.

This book has the somewhat uncommon merit of entirely fulfilling the promises of its title-page. It is a short manual of chemistry, and it is also a short manual of the chief applications of chemistry to the every-day proceedings of the naval and military services. As to the first part, we consider that before this book came into our hands, we should have denied the possibility of putting into twenty-five pages so complete and comprehensive, and at the same time so absolutely lucid, a survey of the field of chemistry as Mr. Lewes has succeeded in doing in his introductory chapter. We have read much longer attempts of this kind, and we have been pleased and interested in them, but we have seen nothing so short, so clear, and so full at the same time, as this. And there is a peculiar art in the way the thing is done

which permeates the book throughout ; that is to say, there are no startling and formal introductions to each branch of the science as it comes on, but each branch introduces the next so cunningly that one cannot say exactly at what point one friend took leave and the next went on with the interesting conversation. And so interesting are these conversations made, that the whole thing can be read like a story which has its lesser and its greater *dénoûments* always in front, and which must be read up to because of the desire to see how they come about. As to the information contained in these first few pages, we venture to think that any person having read it carefully would be quite competent thereafter to understand and appreciate the evidence of a chemical expert. Following his most insidious plan, the author takes his pupil in among the gases, and having got him interested in their nature and properties, selects hydrogen in the second chapter, and we are not quite clear why it is that we have been so much interested in this gas, until we find that no other study would pass us so easily and pleasantly into the chemistry of the galvanic battery, which forms the subject of the third chapter. We are then—without having noticed it—directly in contact with one of the primary applications of chemistry to service wants. But all through the chemistry of the battery, while we have been watching the liberation of hydrogen as a consequence of the decomposition of zinc in contact with oxygen, our attention has been unconsciously fixed upon the latter to prepare us for recognizing it in the fourth chapter as the great decomposer and supporter of nature. Nothing then follows more naturally in the fifth chapter than the compounds of hydrogen with oxygen, out of which spring insensibly all the practical “service” questions relating to water as the chief product of the union of the two gases. So we pass, as if we could not help it, to all the practical questions relating to drinking water in the sixth chapter. But as sea water is one of the “service” supplies of drinking water, and as it also provides the boiler supply, we pass, still easily and naturally, into boiler incrustation in the seventh chapter. And a remarkable point is made here of the very common mistake of supposing that an increase of coal consumption in the course of a voyage can only be referred to foul bottom ; whereas, the author shows, it is even more probably due to boiler incrustation. Oxygen and hydrogen compounds being now carried as far as they will go in service matters, the author passes to carbon and some compounds with hydrogen in the eighth chapter ; and this leads to all the practical questions of gas in coal bunkers, and illuminants. Chapter nine treats of oxides of carbon, leading to fuel in the tenth chapter as the practical development of what has gone immediately before. Chapter eleven takes up nitrogen and its compounds, the study of which conducts us easily to the atmosphere in the twelfth chapter, and just as easily to the most important practical question of ventilation in the thirteenth. All the former chapters have prepared the mind for a new departure, and it readily follows up in the next three chapters a most admir-

able summary of the nature and character of all the known explosives, not stopping short at this, but going into the processes of manufacture, tests, and those practical questions which surround the use of explosives in the service. Sulphur and the halogens follow, and then silicon and its compounds, which bring in many substances in naval use. The metals, which occupy three chapters, lead in their consideration and treatment very naturally to matters of supreme importance to the services, from photography to armour plates, and then in the last chapter to the very important naval question of corrosion and fouling of ships' bottoms, as well as to paints, their natures and qualities, which are to the First Lieutenant's mind by no means the least important among the many questions discussed. We should say generally of this book, that it is exactly what is wanted for the services, and is sure to have a wide circulation between them. But we should be very sorry to limit it in this way. As a manual of chemistry for those to whom such knowledge is needful, but who cannot spare time for an extended study, we are inclined to think it will be found to occupy a foremost place.

MESSRS. SWAN SONNENSCHN & Co. will issue shortly a work which ought to commend itself to all who are interested in the army. It will be entitled *The War Songs of All Nations*, and will consist of the war songs, marches, and other music connected with the battle-fields of various nations. Words and music by Laura Alexandrine Smith, authoress of *The Music of the Waters*. The work is dedicated, by special permission, to Her Most Gracious Majesty the Queen, and amongst those who have already subscribed to it are H.R.H. the Duke of Cambridge, the Duke of Edinburgh, the Duke of Connaught, Prince Albert Victor of Wales, Prince Christian of Schleswig-Holstein, and many others. H.R.H. the Prince of Wales has ordered a copy for the Sandringham Library.

Miss Smith wishes to make this a companion volume to her *Music of the Waters*, and the same style of collecting the songs in this case will be observed as in the other. The work will be divided into national sections, each to be as replete as possible with information on the literature of the war lyrics of the particular country. In order to render the collection as exhaustive as possible, the war cries which preceded the battle songs will be inserted as they existed, or still exist, amongst the different nations. The original tunes will, when possible, be given, and translations into English (where the originals are in a foreign language) will be appended to each song. The price to subscribers will be 7s. 6d., post free.

Foreign Sequine Magazines.

SUMMARY OF ARTICLES.

REVUE MILITAIRE DE L'ÉTRANGER. (Paris : L. Baudoin et Cie., 30, Rue et Passage Dauphine.) October 1889.

German Cavalry in 1889—Military Organization in Roumania—English Expedition to Sikkim, 1888—The English Army in 1889—Movable Turrets and Field Intrenchments—Operations by Night—The Invasion of India (*concluded*).

LE SPECTATEUR MILITAIRE. (Paris : 15, Rue Saint-Benoit.) 15th October and 1st November 1889.

Manœuvres of the 6th (French) *Corps d'Armée*—Letters on Cavalry (*concluded*)—Questions of Organization : The Law on Recruiting—The French Military Penal Code—The Campaign of Turenne and Condé in Flanders and Artois in 1654.

REVUE DU CERCLE MILITAIRE. (Paris : 37, Rue de Bellechasse.) Nos. 40 to 44.

The Military Exhibition of 1889 (No. 40)—The Dutch Army (No. 41)—Regulations for Infantry Manœuvres—The Colonel ; by General Dragomirov (No. 42)—Officers' Remounts and Equine Requisition in Italy (No. 44).

REVUE DE CAVALERIE. (Paris : Berger, Levrault et Cie., 5, Rue des Beaux Arts.) October 1889.

Notes on Lancers—The Training of the Squadron (*continued*)—The New Regulations for the Italian Cavalry (*continued*)—The Remount of a Regiment in 1789.

JOURNAL DES SCIENCES MILITAIRES. (Paris : L. Baudoin et Cie., 30, Rue et Passage Dauphine.) October 1889.

French Remounts ; by General Bonie—The Organization of the (French) Artillery—Historical Notes on the General Staff (*continued*)—The Reserves of an Army in the Field.

JOURNAL DE LA MARINE. LE YACHT. (Paris : 55, Rue du Châteaudun.) Nos. 604 to 609.

Marine Artillery at the Exhibition (No. 604)—The French Colonies (No. 604)—New Cruisers for the United States Navy (No. 606)—Naval Programmes of the Present (No. 607)—The

English Armourclad *Collingwood*—The Greek Armourclad *Spetsia* (No. 608)—The Construction of Screws for Steam Navigation (No. 609).

LE PROGRÈS MILITAIRE. (Paris: 34, Rue du Mont Thabor.) Nos. 931 to 941.

The Organization of the French Railway Service (No. 931)—Artillery Tactics (No. 935)—Lancers or Dragoons? (No. 936)—The New French Batteries of Artillery (No. 936)—Pay in the French and German Armies (No. 938)—The Equipment of the Infantry Soldier (No. 939)—Belgian Neutrality (No. 940).

LA REVUE GÉNÉRALE ET DE L'ÉTAT-MAJOR. (Paris: Berger, Levrault et Cie., 5, Rue des Beaux Arts.) September 1889.

The (French) Army in 1789—The New Law on the Recruiting of the French Army—The Siege of Grave (*continued*).

RIVISTA MILITARE ITALIANA. (Rome: Voghera Carlo.) October 1889.

A Comparative Study of Musketry Instruction in France, Germany, and Italy—The Quantity, Quality, and Preparation of Soldiers' Rations—Remarks on Smokeless Powder—Regulations for Field Exercises of the French Infantry.

RIVISTA DI ARTIGLIERIA E GENIO. (Rome: Voghera Carlo.) October 1889.

Coal Gas and its Uses—Proposals for Simplifying the (Italian) Field Artillery Regulations—Practice against Movable Targets—Electric Signalling from Balloons.

RIVISTA MARITTIMA. (Rome: Tipografia del Senato.) October and November 1889.

At the North Pole—Trials at the Krupp Foundry on the Perforation of Armour-plates—Liverpool and Birkenhead; by an Italian Engineer (*continued*)—Notes on the Composition of Navies—A New Dynamite Engine; from the *Illustrated Naval and Military Magazine*—The Aborigines of Polynesia (October)—The Co-operation of an Army and Navy—Naval Mobilization—Marine Geography—The Evolution of the Torpedo-Boat—The Boilers of New English Ships (November).

DEUTSCHE HEERES-ZEITUNG. (Berlin: Königgrätzerstrasse 41.) Nos. 80 to 91.

The Attack and Defence of Submarine Mines—Trials with Carrier Pigeons for Military Purposes (No. 80)—The Russo-Polish War of 1832—The German Military Estimates for 1890-91—Naval and Military Budgets of Europe (No. 86)—The French Military

Estimates and Army Reorganization (No. 89)—Field Artillery Training in Winter (No. 90).

INTERNATIONALE REVUE UEBER DIE GESAMMTEN ARMEEN UND FLOT-TEN. (Rathenau : Verlag von Max Babenzien.) October 1889.

The Emperor William I. as a Thinker—The Colonial Question in Germany—The Position of Austria-Hungary as opposed to Russia—The New French Army Bill—The Increase and Reorganization of the French Field Artillery—The Belgian Army.

MITTHEILUNGEN UEBER GEGENSTAENDE DES ARTILLERIE UND GENIE-WESENS. (Vienna : Druck und Commissionsverlag von R. v. Waldheim.) No. 10, 1889.

Iron Roofing (*concluded*)—Studies on the Curved Fire of Field Artillery—Fortresses in France.

MITTHEILUNGEN AUS DEM GEBIETE DES SEEWESENS. (Pola : Druck und Commissionsverlag von Carl Gerold's Sohn in Wien.) No. 10, 1889.

On the "Three Arms" of Modern War-ships, and the Elements of Present Day Naval Tactics—The French Naval Manœuvres—Steel and Compound Armour-Plates—The Composition of Torpedo-Boat Flotillas in Russia.

JAHRBUECHER FUER DIE DEUTSCHE ARMEE UND MARINE. (Berlin : R. Wilhelmi.) October, 1889.

Swiss Troops in Pay of France—Field Marshal Radetzky's Italian Campaign, 1848-49; by Major Kunz—Wood-Fighting—Riding in the Artillery—The Electric Light as applied to Military Purposes—Review of Military Literature.

THE PUBLIC SERVICE REVIEW. (New Jersey : American News Co., Barnegat Park.) October 1889.

Drill Regulations for Cavalry in the United States Army—Napoleon; Translated from the French of Alexandre Dumas—Canada : Her Resources and Defences—Field Manœuvres of the United States Army—Frederick III.; from the *Illustrated Naval and Military Magazine*—The British Naval Manœuvres.

THE MILITARY MAGAZINE (*Voyenni Sbornik*). (St. Petersburg.) November 1889.

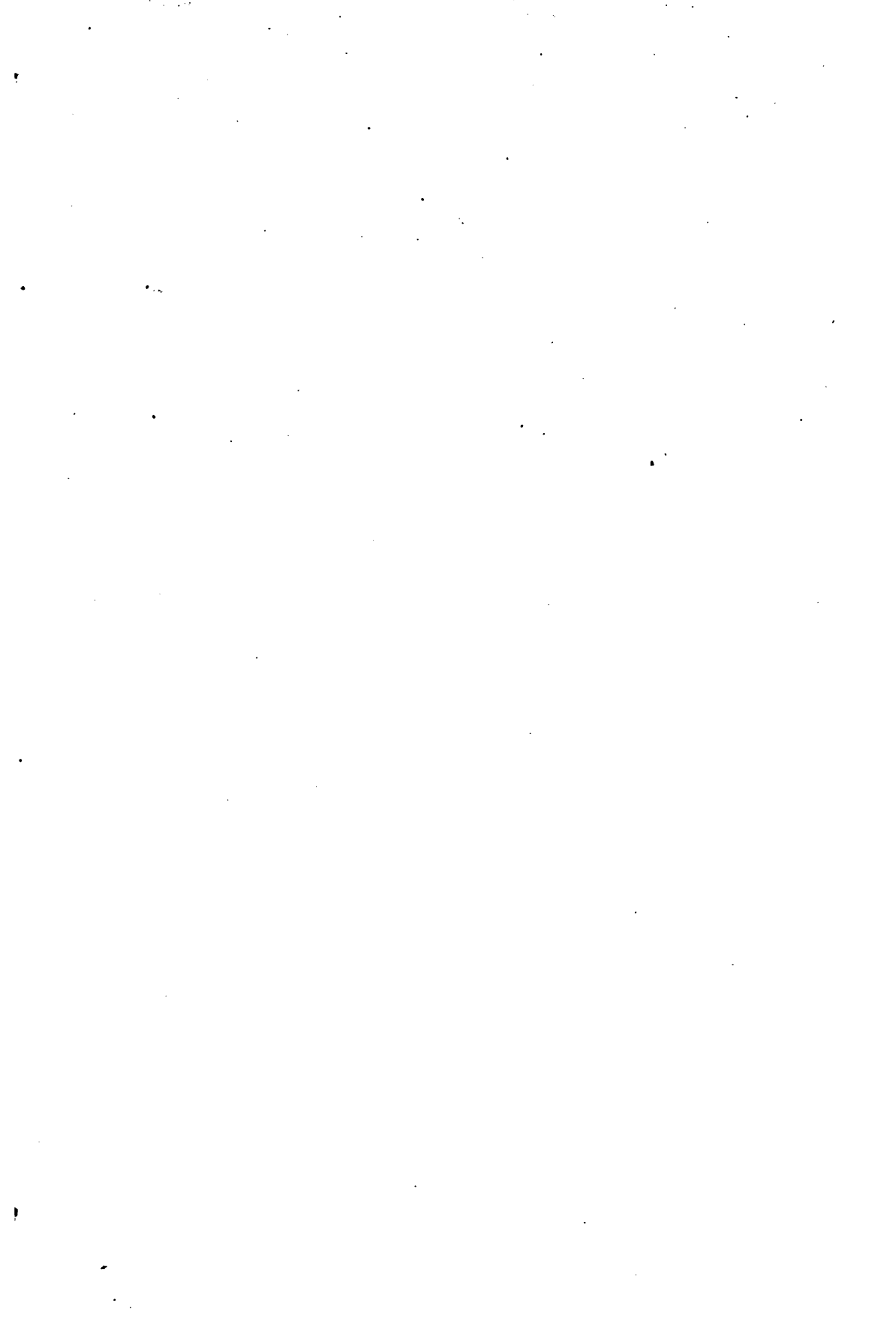
Military Life at Krassnovodsk on the Caspian—A Short Military and Statistical Sketch of the Japanese Empire—Military Railways in France—The Supply of Troops in War.

THE ENGINEERS' JOURNAL. (St. Petersburg.) August 1889.

An Investigation into the Most Recent Methods of Attacking and Defending Fortresses on Dry Land.

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